



Planning Commission Agenda

Comprehensive Planning Manager:
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City Hall
225 Fifth Street
Springfield, Oregon 97477
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Planning Commissioners:
Matthew Salazar, Chair
Isaac Rhoads-Dey, Vice-Chair
Andrew Buck
Seth Thompson
Steven Schmunk
Alan Stout

Join Zoom Meeting or Attend in Person

<https://us06web.zoom.us/j/4107418327?pwd=U1lPeWJxM0gxVnNDT1pPbFlOb3pTQT09>

Meeting ID: 410 741 8327 Passcode: 5417263653

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All proceedings before the Planning Commission are recorded.
To view agenda packet materials or view a recording after the meeting, go to
SpringfieldOregonSpeaks.org

November 7th, 2023

6:00 p.m. Planning Commission Work Session
Jesse Maine Room (City Hall) & via Zoom

The Jesse Maine Room is ADA accessible.

CALL TO ORDER

ATTENDANCE

Chair Salazar _____, Vice Chair Rhoads-Dey _____, Buck _____,
Thompson _____, Schmunk _____, Stout _____.

ITEM(S)

- **Capital Improvement Program, A Community Reinvestment Plan**
Staff: Jeff Paschall / Stan Petroff
50 Minutes

7:00 p.m. (approx.) Planning Commission Regular Session

CALL TO ORDER

ATTENDANCE

Chair Salazar _____, Vice Chair Rhoads-Dey _____, Buck _____,
Thompson _____, Schmunk _____, Stout _____.

PLEDGE OF ALLEGIENCE

APPROVAL OF THE MINUTES:

- October 17th, 2023

BUSINESS FROM THE AUDIENCE

PUBLIC HEARING

- 1) **PeaceHealth Metro Plan Amendment and Zone Change**
Staff: Andy Limbird, Senior Planner
45 Minutes

CONDUCT OF QUASI-JUDICIAL PUBLIC HEARING

- Staff explanation of quasi-judicial hearing process (ORS 197.763 and Springfield Development Code 5.1.500)
- Chair opens the public hearing
- Commission members declaration of conflicts of interest, bias, or “ex-parte” contact
- Any challenges to the impartiality of the Commissioners or objection to the jurisdiction of the Commission to hear the matter
- Staff report
- Testimony from the applicant
- Testimony in support of the application
- Testimony neither in support of nor opposed to the application
- Testimony opposed to the application
- Rebuttal from the applicant
- Staff comment
- Planning Commission questions to staff or public
- Close or continue public hearing; close or extend written record (continuance or extension by motion)
- Planning Commission Deliberations – discussion of the proposal including testimony and evidence addressing the applicable approval criteria
- Motion to approve as presented, approve with modifications, or deny the application based on the Commissions’ findings of fact contained in the staff report, oral and written testimony, and other evidence submitted into the record

REPORT ON COUNCIL ACTION

BUSINESS FROM THE PLANNING COMMISSION

BUSINESS FROM THE DEVELOPMENT AND PUBLIC WORKS DEPARTMENT

ADJOURNMENT

Planning Commission Minutes – October 17th, 2023

Springfield Planning Commission

Minutes for Tuesday, October 17th, 2023

CCI Session 6:00 pm

Meeting held in the Jesse Maine Room (City Hall) and via Zoom

Planning Commissioners Present: Chair Salazar, Vice Chair Rhoads-Dey, Stout, and Schmunk

Excused Absence: Thompson, Buck

Staff: Sandy Belson, Comprehensive Planning Manager; Sarah Weaver, Community Development Administrative Assistant; Kristina Kraaz, Assistant City Attorney, Haley Campbell, Senior Planner; Chelsea Hartman; Senior Planner; Monica Sather, Planner

Chair Salazar called the Committee for Citizen Involvement to order at 6:00 p.m.

Item(s):

- **Community for Citizen Involvement: Annual Report**
Sandy Belson, Comprehensive Planning Manager
50 Minutes

Commissioners agreed with the content of the report, including right-sizing engagement efforts to the project. They also made the following points.

- Springfield Oregon Speaks is a great resource. It is a lot more intuitive than the city's website. Would love to see it become more of a one-stop shop for people. Would like a button to Springfield Oregon Speaks from the City's home page. See if there's a way to add a search function to Springfield Oregon Speaks.
- For a project, provide the background (e.g. why are we here, what are we doing, where did we come from) in a simple, concise manner so people can readily determine if they are interested in a topic. They can then decide if they want to look at the various documents or engage further.
- People are interested in development activities like new stores, or new businesses going into existing buildings. Issuing press releases about these developments could allow the news media to determine what would be of interest to the people and these articles could be a hook to get people interested in community development.
- As we move forward with implementation of the Climate Friendly and Equitable Communities Rules, we need to think about how we present them to the public given that they are a wonky and confusing set of rules. We should explain the reason(s) for doing this work – including that it is mandated by the state. Consider preparing a guide with links to Council and Planning Commission discussions about these rules over the past year.

Adjourned the Work Session at 6:55 pm.

Planning Commission Minutes – October 17th, 2023

Chair Salazar called the Regular Session of the Planning Commission to order at 7:00 p.m.

PLEDGE OF ALLIAGENCE – Led by Vice Chair Rhoads-Dey

APPROVAL OF THE MINUTES – Approved / no with corrections

- June 21st, 2023
- August 15th, 2023
- September 5th, 2023

BUSINESS FROM THE AUDIENCE – None

REPORT OF COUNCIL ACTION

Commissioner Schmunk reported on City Council's September 18th meeting.

Commissioner Stout reported on City Council's October 2nd, meeting.

BUSINESS FROM THE PLANNING COMMISSION

Vice Chair Rhoads-Dey reported on the two-day Planning Seminar on Oregon Planning Procedures at Woodburn on September 29th and 30th, 2023.

BUSINESS FROM THE DEVELOPMENT AND PUBLIC WORKS DEPARTMENT

Sandy Belson / Staff: reported that there were three applicants for the vacant Planning Commission position, one of whom choose the Planning Commission as their first choice. Interviews with the Council will take place next Monday, October 23rd, beginning at 5:45 pm.

On November 7th, the Planning Commission will meet for a work and regular session, beginning at 6:00 pm. We are not sure, if we will meet again on November 21st. Please keep the date available in case we have business for that date.

ADJOURNMENT – 7:11 PM

AGENDA ITEM SUMMARY

Meeting Date: 11/7/2023
Meeting Type: Work Session
Staff Contact/Dept.: Stan Petroff, DPW
Jeff Paschall, DPW
Staff Phone No: 541-726-1673
541-726-1674
Estimated Time: 50 Minutes
Council Goals: Maintain and Improve Infrastructure
and Facilities

**SPRINGFIELD
PLANNING COMMISSION**

ITEM TITLE: 2025-2029 CAPITAL IMPROVEMENT PROGRAM, A COMMUNITY REINVESTMENT PLAN

ACTION REQUESTED: Review and provide direction for the recommended five-year Capital Improvement Program (CIP).

ISSUE STATEMENT: Draft Project lists have been prepared for the City of Springfield's 2025-2029 CIP – A Community Reinvestment Plan. The lists are being brought to the Planning Commission for review and discussion with the Planning Commission. Staff will bring the CIP back to the Planning Commission December 5th during the regular session for a recommendation to forward to the City Council.

ATTACHMENTS:

1. Communication Memorandum
2. Draft 2025-2029 Capital Improvement Program – A Community Reinvestment Plan Project Lists

DISCUSSION: Draft project lists have been compiled for the City of Springfield 2025-2029 CIP. The draft project lists are ready for review and discussion by the Planning Commission.

The City of Springfield's Capital Improvement Program (CIP) is a five-year Community Reinvestment Plan that describes the near-term program for funding, evaluation, and construction of City owned and operated public facilities. A fundamental purpose of the CIP is to facilitate the efficient use of capital resources to maintain, improve, and expand City assets. The underlying concept is to strategically prioritize and program these resources to extend the useful life of existing assets, replace assets before failure, and to support growth with timely expansion.

The project lists are structured into current budget and completed projects, proposed projects with detailed project sheets, and unfunded needs. These items are detailed in the attached Communication Memorandum, and staff will review these lists with the Commission.

COMMUNICATION MEMORANDUM

Meeting Date: 11/7/2023
Meeting Type: Work Session
Staff Contact/Dept.: Stan Petroff/DPW
Jeff Paschall/DPW
Staff Phone No: 541-726-1673
541-726-1674
Estimated Time: 50 Minutes
Council Goals: Maintain and Improve
Infrastructure and
Facilities

**SPRINGFIELD
PLANNING COMMISSION**

ITEM TITLE:	2025-2029 CAPITAL IMPROVEMENT PROGRAM, A COMMUNITY REINVESTMENT PLAN
ACTION REQUESTED:	Review and provide direction for the recommended five-year Capital Improvement Program (CIP).
ISSUE STATEMENT:	Draft Project lists have been prepared for the City of Springfield’s 2025-2029 CIP – A Community Reinvestment Plan. The lists are being brought to the Planning Commission for review and discussion with the Planning Commission. Staff will bring the CIP back to the Planning Commission December 5 th during the regular session for a recommendation to forward to the City Council.
ATTACHMENTS:	1. Draft 2025-2029 Capital Improvement Program – A Community Reinvestment Plan Project Lists

DISCUSSION:**BACKGROUND**

The City of Springfield’s Capital Improvement Program (CIP) is a five-year Community Reinvestment Plan that describes the near-term program for funding, evaluation, and construction of City-owned and operated public facilities. A fundamental purpose of the CIP is to facilitate the efficient use of capital resources to maintain, improve, and expand City assets. The underlying concept is to strategically prioritize and program these resources to extend the useful life of existing assets, replace assets before failure, and to support growth with timely expansion.

The CIP is typically updated on a biennial basis and was last updated in the fall of 2021. The CIP update schedule is set to ensure that adoption of the plan occurs prior to preparation of the draft capital budget which typically begins the end of January each year.

The CIP is an intermediate step in a process that originates with long term planning activities that anticipate the need for public facilities at least 20 years into the future and concludes with the adoption of the annual Capital Budget to appropriate funds to construction projects. Operation and maintenance cost of City-owned assets is appropriated separately in the City’s budget.

As the interim step in the process, the CIP identifies the facilities concepts that may reasonably be expected to be required in the next five years, refines those concepts, and provides a priority list of projects. Priority projects are selected from the long list of needed capital improvements identified in the various master plans and refinement plans. The draft project lists are then presented to both the Planning Commission and the City Council for public review and comment prior to adoption by the City Council.

Over the last decade, the City has seen the wastewater and stormwater funds stabilize, which has supported completion of several projects and funding to be programmed for the next suite of projects identified within the City’s adopted master plans. The City is currently in the midst of a Wastewater Master Plan update that assesses capital needs for

the next 20 years. The draft project list from this effort has been used to inform wastewater section for this CIP update and will be utilized for future updates. Street and Transportation funds have not seen growth to keep pace with operating costs and provide for robust capital spending. The City relies on federal and state funding sources to support a majority of street and transportation projects and relies on street fund revenues and systems development charges to provide required match to outside funding sources. The City Council has directed staff to prepare a proposed project list and other materials to consider seeking voter approval of another street preservation bond next year.

The project section of the 2025-2029 CIP is organized by asset system with three sections for each system. The first section is a table that has details for the projects that are either in the current capital budget or have been completed since the last CIP update. The next section is the project detail sheets for those projects proposed to be programmed over the next five-year cycle. The last section is another table detailing the list of currently unfunded or partially funded projects. As appropriate resources become available or potential grant opportunities are identified these lists will be used to match projects with those priorities.

Stormwater – In review of the current capital budget and the previous CIP, a majority of the projects have been placed into a hold status. This is due to anticipation of focusing limited capital delivery staffing resources to delivery of the 2024 General Obligation (GO) Bond street preservation projects, as well as Phase 2 of the federal aid funded Franklin Blvd. Roundabout Project. However, water quality initiatives are being advanced as many of the street projects incorporate improvements to treat runoff from street surfaces.

Street and Transportation – The City completed all of the street segments scheduled for preservation through the citizen approved five-year general obligation bond are completed. Several safety and pedestrian projects were also completed over the past two years such as the Aster St. ADA Ramp Project, Jasper Dondea Rectangular Rapid Flashing Beacon (RRFB), Meadow Park ADA Ramp Project, Virginia-Daisy Bikeway – Phase 1A, S. 32nd and Virginia RRFB, and Jasper Rd/Filbert Ln Safe Routes to School Project. Many others such as the Sidewalk Filling the Gaps, Franklin Blvd./OR22 Environmental Study, Franklin Blvd. Roundabouts Phase 2, 42nd St. Levee Study, S28th St. Paving, Virginia-Daisy Bikeway Phase 2, Mill St. Reconstruction, Laura St. Reconstruction, Signal Enhancements Project, S 42nd/Daisy Roundabout and 42nd St. Overlay are in the design phase with construction anticipated in 2024 or 2025. If the passage of a 2024 GO Bond project package is successful, it is anticipated planning and design for preservation of several additional street segments will start in late 2024.

Wastewater – Several sewer projects have been completed over the last couple of years including 42nd-48th Sanitary Sewer Rehab, S. 28th St. Sanitary Sewer Extension, and S. 37th/S. 38th/Osage Sewer Replacement. The Jasper Trunk Sewer – Phase 3 and 70th St and 72nd St. Wastewater Basin Rehab Projects are currently in the design phase with anticipated construction in either 2024 or 2025. Wastewater improvements are also planned for the Mill Street and 16th Street Emergency Repair projects which are currently in the design phase with construction planned in 2024. There are several areas within the City and urban growth boundary that are fully developed but lack wastewater service. It is anticipated sewer extensions to these areas will be completed in 2024 and 2025 and these projects are proposed in the 2025-2029 CIP. Additionally, the Wastewater Master Plan is being updated and certain portions of the Capacity, Management, Operations, and Maintenance (CMOM) program are proposed to be included as policy. Adoption of the updated document is expected in 2024. In anticipation of this update, some of the identified rehabilitation needs are considered with this CIP update.

Buildings and Facilities – Available funding for building and facilities projects is very limited so there is a long list of identified unfunded projects or programs. However, upgrades to City Hall including security and Council Chamber improvements and the Building G roof at Booth-Kelly were completed. Additional upgrades to at City Hall are planned for 2024 and 2025. Many of these projects have been funded through American Rescue Plan Act (ARPA) funds.

FUTURE CONSIDERATIONS

As stated earlier, many of the stormwater and wastewater projects have been on hold due to limited staffing resources. The majority of capital staff workload has been focused on delivering street and transportation projects. A change to this focus for current staff is not for the near or intermediate term as the City is seeking to pass another street preservation bond and several federal grant funded transportation projects are currently programmed.

Given that the wastewater and stormwater funds are very stable with healthy reserves and a steady annual revenue stream, Community Development will be recommending an increase in capital staffing levels for FY25. If approved, new staff would be dedicated to delivery of wastewater and stormwater projects.

FINANCIAL IMPACT:

The CIP does not carry budget authority. It is, however, a valuable planning tool used to guide staff, the Budget Committee, and the City Council in creating the annual budget to fund priority projects.

FY23-FY24 Capital Project Status Update - Stormwater

Project Title	Project Number	In Previous CIP	Project Category	Project Status	FY24 Budget (\$ in Thousands)	Total Cost to Complete	Notes
5th St./EWEB Path Pipe Upgrade	P21124	X	Upgrades	On-Hold	\$112		
Booth Kelly Stormwater Drainage Plan Implementation	P50234	X	Upgrades	Not Started	\$150		
Irving Slough Improvements	P21138	X	Water Quality	Not Started	\$1,225		
2021 Maintenance Hole Rehab	P21168		Repair and Preservation	Completed	\$0		Constructed in FY22
Channel 6 Master Plan Implementation	P41020	X	Upgrades	On-Hold	\$799		Some work will complete as part of the Laura Street Upgrades, remainder of projects on hold
Stormwater Master Plan Update	P41021	X	Studies	Not Started	\$0		
Glenwood Stormwater Master Plan	P41042	X	Studies	Planning	\$325		
42nd Street Levee Study	P41044	X	Flood Control	Planning	\$600		Receiving a State grant (\$40,000) in FY22
Glenwood Park Blocks	P41045	X	Studies	Not Started	\$50		
Stormwater Repair	P61002	X	Repair and Preservation	Ongoing Program	\$700		
Channel Improvement	P61004	X	Water Quality	Ongoing Program	\$1,192		
MS4 Permit Implementation	P61005	X	Water Quality	Ongoing Program	\$80		Updating code in FY24, ongoing annual reporting and program management
Riparian Land Management	P61006	X	Water Quality	Ongoing Program	\$303		Purchased Linda Lane property.
HOA Water Quality Facilities	P61012	X	Water Quality	Ongoing Program	\$85		
South 70th St Storm Pipe Replacement	P21191		Flood Control	On-Hold			
2023 Main. Hole Rehabilitation	P21192		Repair and Preservation	On-Hold			

Drainage Repair

Department Development and Public Works

Project Description:

This program involves the rehabilitation of Springfield drainage systems; to repair or replace older pipe in the system and solve flooding problems and reduce street surface failures due to poor drainage. This program also includes rehabilitation of catch basins and culverts to prevent flooding, and the contractual cleaning of large storm sewer pipe. Potential projects include:

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Springfield Stormwater Management Plan
- Stormwater Master Plan
- DEQ Stormwater Discharge Permit
- Asset Management Program
- Natural Hazard Mitigation Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital	\$150	\$150	\$150	\$150	\$150	\$750
Stormwater Reimbursement SDC	\$50	\$50	\$50	\$50	\$50	\$250
Total	\$200	\$200	\$200	\$200	\$200	\$1,000

Channel Improvement

Department Development and Public Works

Project Description:

This project is intended to provide improvements to key drainage ways to address barriers to fish passage, and to correct previous channel modifications that have caused deterioration of flow capacity, water quality, and fish habitat functions. These improvements include culvert replacements or retrofits, road crossing and outfall modifications, and channel restoration. The adoption of the Springfield Total Maximum Daily Load Implementation Plan identifies an additional temperature benefit from channel restoration and shading.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Springfield Stormwater Management Plan
- Stormwater Master Plan
- DEQ Stormwater Discharge Permit
- Asset Management Program
- Natural Hazard Mitigation Plan
- Total Maximum Daily Load (TMDL) Implementation Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital	\$80	\$80	\$80	\$80	\$80	\$400
Stormwater Reimbursement SDC	\$20	\$20	\$20	\$20	\$20	\$100
Total	\$100	\$100	\$100	\$100	\$100	\$500

MS4 Permit Requirements

Department Development and Public Works

Project Description:

Develop and implement programs and projects to comply with the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Discharge requirements. In 2003, the City applied for an MS4 permit from the Oregon Department of Environmental Quality (DEQ), which authorizes the City to lawfully discharge stormwater to the McKenzie and Willamette Rivers and their tributaries. The Permit was renewed in 2021 and requires the City to implement programs and capital projects that improve stormwater quality. Data show that stormwater in Springfield waterways routinely violates water quality standards established to protect human health and aquatic life. This project provides for minor capital improvements and/or capital equipment purchases necessary and appropriate to address high priority water quality problem areas.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Springfield Stormwater Management Plan
- Stormwater Master Plan
- DEQ Stormwater Discharge Permit
- Total Maximum Daily Load (TMDL) Implementation Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital	\$20	\$20	\$20	\$20	\$20	\$100
Stormwater Reimbursement SDC	\$20	\$20	\$20	\$20	\$20	\$100
Total	\$40	\$40	\$40	\$40	\$40	\$200

Riparian Land Management

Department Development and Public Works

Project Description:

This project provides funding to purchase riparian area lands from private property owners where needed to meet City and regulatory objectives for water quality, stormwater management, flood control and habitat protection. It also provides funding for consultant services to evaluate riparian buffer areas, City and other activities affecting them. Property acquisitions will typically result in increased operational spending to maintain city owned property. Projects developed on property acquired may, however, produce savings through reduced spending for flood control, water quality improvement, and wetland mitigation activities. Project funding levels have been reduced to conform to eligibility levels for improvement SDCs. Council adoption and implementation of a reimbursement SDC may permit restoration of prior funding levels.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Springfield Stormwater Management Plan
- Stormwater Master Plan
- DEQ Stormwater Discharge Permit
- Total Maximum Daily Load (TMDL) Implementation Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital	\$15	\$15	\$15	\$15	\$15	\$75
Stormwater Reimbursement SDC	\$13	\$13	\$13	\$13	\$13	\$65
Total	\$28	\$28	\$28	\$28	\$28	\$140

HOA Water Quality Facilities (WQF)

Department Development and Public Works

Project Description:

There are approximately 40 WQFs in subdivisions that were built between 1993 and 2010 that are privately owned by HOAs or another private entity (individual residents, the original developer, etc.). The City has taken a progressively more active role in maintaining these facilities over the past five years. With the approval of Council in 2013, the City's Operations Division hires a temporary work crew each summer to manage vegetation in the facilities and ensure they are functioning properly. This capital program will begin setting aside funds to take over and bring into compliance selected privately owned water quality facilities.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Springfield Stormwater Management Plan
- Stormwater Master Plan
- DEQ Stormwater Discharge Permit
- Total Maximum Daily Load (TMDL) Implementation Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital	\$85	\$85	\$85	\$85	\$85	\$425
Stormwater Reimbursement SDC						
Total	\$85	\$85	\$85	\$85	\$85	\$425

S. 67th Street Stormwater Improvements

Department Development and Public Works

Project Description:

Pipe improvements for flood control. Currently, during heavy rainfall the storm system surcharges at 67th and Main Street flooding private property.

Project Status:

Not Started

Specific Plans/Policies Related to this Project:

- Stormwater Master Plan
- DEQ Stormwater Discharge Permit
- Natural Hazard Mitigation Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital		\$408				\$408
Stormwater Improvement SDC		\$42				\$42
Total	\$0	\$450	\$0	\$0	\$0	\$450

Jasper-Natron

Department Development and Public Works

Project Description:

The Jasper-Natron area requires comprehensive evaluation for future stormwater infrastructure needs to support future growth and meet the City's DEQ Stormwater Discharge Permit requirements. The first phase of the project will be completing the analysis to develop a master plan for the basin, followed by implementation either by private developments, or City sponsored initiatives. The funding identified is for study and plan development.

Project Status:

Not Started

Specific Plans/Policies Related to this Project:

- Stormwater Master Plan
- DEQ Stormwater Discharge Permit
- Natural Hazard Mitigation Plan
- Total Maximum Daily Load (TMDL) Implementation Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital			\$350			\$350
Stormwater Improvement SDC			\$350			\$350
Total	\$0	\$0	\$700	\$0	\$0	\$700

Lower Mill Race

Department Development and Public Works

Project Description:

Design and construct a daylight or diversion pretreatment structure, an offline water quality treatment facility, and a green pipe open channel improvement. Additional detail for this multi-faceted project are in WQ-12 project of the Stormwater Facilities Master Plan.

Project Status:

Not Started

Specific Plans/Policies Related to this Project:

Stormwater Master Plan	Booth Kelly Stormwater Plan
DEQ Stormwater Discharge Permit	Stormwater Management Plan
Natural Hazard Mitigation Plan	Mill Race Ecosystem Plan
Total Maximum Daily Load (TMDL) Implementation Plan	

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital			\$500			\$500
Sormwater Improvement SDC			\$73			\$73
Total	\$0	\$0	\$573	\$0	\$0	\$573

Mill Race Firm Update

Department Development and Public Works

Project Description:

Using consulting services, prepare a scope document for a new flood plain study to update the Flood Insurance Rate Map (FIRM) for the Springfield Mill Race from the inlet at Clearwater Park to the outlet at Island Park to incorporate construction changes.

Project Status:

Not Started

Specific Plans/Policies Related to this Project:

- Natural Hazard Mitigation Plan
- Continued Participation in the National Flood Insurance Program

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital			\$200			\$200
Total	\$0	\$0	\$200	\$0	\$0	\$200

Over-Under Channel Phase 2

Department Development and Public Works

Project Description:

The Over-Under Channel system has approximately 2,200 linear feet of woodstave pipe, and 1,000 linear feet of corrugated metal pipe (CMP) remaining under the existing channel. Phase 2 is intended to replace the existing woodstave and remaining CMP with a new pipe, as well as provide a parallel pipe for additional capacity as recommended in the 2008 Stormwater Facility Master Plan and the Over-Under Channel investigative report. The remaining pipe to be replaced runs from 10th Street east to 14th Street across Springfield School District property and Willamalane Park property.

Project Status:

Not Started

Specific Plans/Policies Related to this Project:

Stormwater Master Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Stormwater Capital			\$500			\$500
Stormwater Improvement SDC			\$10			\$10
Total	\$0	\$0	\$510	\$0	\$0	\$510

Unfunded Projects List - Stormwater

Project Title	Project Category	Project Status	Estimated Funding Need	Notes
Gray Creek/72nd Street	Expansion	Not Programmed-Pending Funding	\$6,000,000	Construction of new channels and other improvements to accommodate runoff from future development
Corporate Way Pond	Studies	Not Programmed-Pending Funding	\$250,000	Develop a vegetation management plan SWMP Project 43-WQ
Cedar Creek Intake Reconstruction	Water Quality	Not Programmed-Pending Funding	\$1,000,000	Restoration work to improve and manage year round flow volumes
North Willamette Heights	Studies	Not Programmed-Pending Funding	\$100,000	Develop a basin specific master plan to guided development and redevelopment
Jasper Slough	Restoration	Not Programmed-Pending Funding	\$100,000	Culvert and open channel improvements along with riparian vegetation restoration
Woodstave Removal	Upgrades	Not Programmed-Pending Funding	\$750,000	This pipeline is located south of S. A Street and is complicated by the fact portions of the line are under existing buildings and lack public access easements
S and T Streets Drainage	Upgrades	Not Programmed-Pending Funding	\$750,000	Upgrade project to improve inadequate storm system and alleviate localized flooding. Reference Channel 6 Study and Master Plan
I-5 N. Gateway/Sports Way Channel	Water Quality	Not Programmed-Pending Funding	\$750,000	Construct a combination flood control/water quality facility adjacent to the Gateway Natural Resource area.
Q Street Channel	Water Quality	Not Programmed-Pending Funding	\$750,000	Channel Repair, riparian enhancement and shading to address temperature issues in the TMDL.
Maple Island Slough	Studies	Not Programmed-Pending Funding	\$650,000	Evaluate capacity needs to support developments and develop a vegetation management plan.

FY23-FY24 Capital Project Status Update - Streets and Transportation

Project Title	Project Number	In Previous CIP	Project Category	Project Status	FY24 Budget (\$ in Thousands)	Total Cost to Complete (\$ in Thousands)	Notes
Filling the Gaps - Sidewalk Infill Project	P21147	X	Safety	Design	\$151		Project list approved through Council
Centennial Blvd Overlay	P21151	X	Repair and Preservation	Completed		\$935	Constructed in FY23
High Banks Rd./58th St./Thurston Rd. Overlay	P21152	X	Repair and Preservation	Completed		\$2,301	Constructed in FY23
S. 28th Street Paving	P21155	X	Upgrades	Construction	\$1,171		Design complete, construction anticipated FY24
Mill Street Reconstruction	P21156	x	Repair and Preservation	Design	\$557		Construction anticipated FY24
Mohawk blvd./Olympic St. Overlay	P21157	x	Repair and Preservation	Completed		\$2,465	Constructed in FY23
Virginia/Daisy Bicycle Blvd. Phase 2 - S. 42nd and Daisy Roundabout	P21159	X	Safety	Design	\$594		Design underway, construction anticipated FY24
Gateway/Kruse Improvements	P21165	x	Safety	Completed	\$0		
Jasper Rd./Dondea RRFB	P21167		Safety	Construction	\$0		Construction to be completed end of FY23
Aster Street at S 58th and Meadow Park ADA Ramps	P21172		Upgrades	Completed		\$35	Constructed in FY23
City of Springfield Signal Enhancements	P21173		Upgrades	Construction	\$0		Design nearing completion, construction anticipated FY24
Jasper/Filbert RRFB Crossing	P21174		Safety	Design	\$0		Design underway, construction anticipated FY24
Franklin OR 225 (Env. Analysis and Prelim Design)	P21176		Upgrades	Design	\$60	\$56	Design underway through Preliminary Plans.
S 32nd and Virginia RRFB	P21177		Safety	Design		\$20	
Citywide Streetlight LED Upgrades	P21183		Upgrades	Construction	\$0		
Laura St. Reconstruction	P21188		Repair and Preservation	Design	\$182		Design underway, construction anticipated FY24
42nd Street Overlay - International Paper to Marcola Rd.	P21195		Repair and Preservation	Design	\$1,650		Design underway, construction anticipated FY24
West D Street Improvements	P41049	x	Safety	Construction	\$34		Project identified and funded through the Walking-Biking Safety grant application
Franklin Phase 2 Design	P41058	x	Upgrades	Planning	\$0		
ADA Transition Projects	P61003	X	Upgrades	Ongoing Program	\$225		

FY23-FY24 Capital Project Status Update - Streets and Transportation

Project Title	Project Number	In Previous CIP	Project Category	Project Status	FY24 Budget (\$ in Thousands)	Total Cost to Complete (\$ in Thousands)	Notes
Transportation Demand Management	P61007	X		Ongoing Program	\$140		Funds set aside to advance projects to enhance non-auto travel links throughout the City.
Traffic Control Projects	P61008	X		Ongoing Program	\$520		Funds set aside to advance intersection improvement projects. Example: S. 42nd St.\Daisy Intersection.
42nd Street Operational, Safety, and Mobility Improvements		x	Upgrades	On-Hold	\$10,000		Planning to commence in coordination with 42nd Street Levee project
Gateway Area Traffic Improvements	P61009	X		Ongoing Program	\$1,070		Funds set aside to advance project in the Gateway area to increase capacity.

ADA Transition Projects

Department Development and Public Works

Project Description:

The Americans with Disabilities Act of 1990 requires the City to maintain a "Transition Plan" that details how it will bring facilities that were not in compliance at the adoption of the act, up to the newly adopted standards. Currently, the City policy is to correct defects as projects occur and to make improvements as requests are received from citizens who make their need known. This project will set aside funds to be used for high priority locations that are identified, and will allow the City to respond in a timely manner to those requests.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Springfield TSP
- Regulatory Requirements

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Street Capital	\$50	\$50	\$50	\$50	\$50	\$250
Transportation Reimbursement SDC	\$50	\$50	\$50	\$50	\$50	\$250
Total	\$100	\$100	\$100	\$100	\$100	\$500

Transportation Demand Management

Department Development and Public Works

Project Description:

The project includes match funding for other transportation options projects to enhance non-auto travel links in the community such as Street multi-use paths, bike lane striping, enhancements to pedestrian facilities, and other activities that promote non-single auto travel choices.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Springfield TSP TDM Goals
- State Legislation Regional Transportation Plan

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Transportation Improvement SDC	\$10	\$10	\$10	\$10	\$10	\$50
Total	\$10	\$10	\$10	\$10	\$10	\$50

Traffic Control Projects

Department Development and Public Works

Project Description:

This project is for installation of new traffic signals and modification of existing signals or installation of roundabouts at various City intersections. Example intersections include: Thurston Rd. & 66th St., 42nd St. & Marcola Road, South 42nd & Daisy St., South 40th & Daisy St., 19th St. and Marcola Rd., and 28th St. & Centennial Blvd. Signal modifications may include changing phase order, adding overlaps, and other enhancements to safety or efficiency like improved pedestrian crossings. Various striping and signing improvements may also be implemented under the Traffic Control Projects. Funding is set aside in this program and as projects are identified that fit into this category they are given an individual account and at that time another source of funding will be identified to match the allowable SDC funds.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

Springfield TSP Regional Transportation Plan
 Council Policy

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Transportation Improvement SDC	\$35	\$35	\$35	\$35	\$35	\$175
Total	\$35	\$35	\$35	\$35	\$35	\$175

Gateway Area Traffic Improvements

Department Development and Public Works

Project Description:

Transportation improvements at various locations in the Gateway area to increase capacity, relieve congestion, and improve safety. Funding is set aside in this program and as projects are identified that fit into this category they are given an individual account and at that time another source of funding is identified to match the allowable SDC funds.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Springfield TSP Gateway Traffic Capacity Analysis
- Council Goals I-5/Beltline Environmental Assessment

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Transportation Improvement SDC	\$225	\$225	\$225	\$225	\$225	\$1,125
Total	\$225	\$225	\$225	\$225	\$225	\$1,125

Intelligent Transportation Systems (ITS)

Department Development and Public Works

Project Description:

ITS projects in various locations to increase communications, capacity, safety and traveler information. Funding is set aside in this program and as projects are identified that fit into this category they are given an individual account and at that time another source of funding will be identified to match the allowable SDC funds.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

Regional ITS Operations & Implementation Plan for Eugene-Springfield Metropolitan Area
Springfield TSP

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Transportation Improvement SDC	\$25	\$25	\$25	\$25	\$25	\$125
Total	\$25	\$25	\$25	\$25	\$25	\$125

Local/Residential Street Preservation and Maintenance

Department Development and Public Works

Project Description:

A continuing street maintenance preservation effort by slurry and crack sealing of Local/Residential Street System performed by contract. In order to maintain the City's local street system approximately 5 to 8 miles should be crack sealed and slurry sealed annually. Funds programmed fund an annual slurry seal project.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

Infrastructure Management System

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Street Capital	\$150	\$150	\$150	\$150	\$150	\$750
Total	\$150	\$150	\$150	\$150	\$150	\$750

Aspen Street Improvements

Department Development and Public Works

Project Description:

The City has negotiated jurisdictional os Aspen St. and Menlo Lp. Between Centennial Blvd. and Tamarack St. As part of the transfer agreement, the County is giving the City \$415,000 to facilitate pavement improvments as well as facilities upgrades (e.g., sidewalks).

Project Status:

Not Started

Specific Plans/Policies Related to this Project:

Infrastructure Management System

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Street Capital	\$415					\$415
						\$0
Total	\$415	\$0	\$0	\$0	\$0	\$415

Unfunded/Partial Funded Projects List - Streets and Transportation

Project Title	Project Category	Project Status	Estimated Funding Need	Notes
Virginia-Daisy Bikeway Phase 3	Upgrades	Not Programmed-Pending Funding	\$1,400,000	Construction of Bicycle, pedestrian, and ADA improvements between S. 32nd Street and S. 42nd Street. Currently scoping for potential ARTS grant funding.
Gateway-Beltline Intersection Improvements	Upgrades	Not Programmed-Pending Funding	\$20,000,000	Phase 2 improvements currently outlined in the Revised Environmental Assessment (REA) include construction of a couplet.
Signal System Modernization	Upgrades	Not Programmed-Pending Funding	\$55,000 on an annual basis	Upgrade program to keep City traffic signals up to date on technology
S. 48th Street connection - Main to Daisy	Expansion	Not Programmed-Pending Funding	\$927,000	Construction of this new road segment is development driven.
Bridge Preservation	Repair and Preservation	Not Programmed-Pending Funding	\$50,000 on an annual basis	This City owns 14 bridges that are inspected on a biennial schedule by ODOT. This program would facilitate completion of identified repair needs
Downtown District Pedestrian Scale Lighting	Upgrades	Not Programmed-Pending Funding	\$7,600,000	Complete all downtown lighting upgrade phases.
Arterial/Collector Street Preservation Program	Repair and Preservation	Not Programmed-Pending Funding	\$1,000,000 on an annual Basis	A continuing street maintenance effort of pavement sealing and/or overlay of the Arterial/Collector Street System
Street Light Infill & LPS Light Replacement/Upgrades	Upgrades	Not Programmed-Pending Funding	\$2,000,000	Replace 2,720 existing low pressure sodium (LPS) lights with LED technology and reduce energy costs.
Arterial/Collector Street Reconstruction Program	Restoration	Not Programmed-Pending Funding	\$1,000,000 on an annual Basis	Within the City's Street inventory, the condition of approximately 24 miles of streets classified as a collector or arterial have deteriorated to the point that reconstruction of the structure is the only option
Local/Residential Street Reconstruction	Restoration	Not Programmed-Pending Funding	\$300,000 on an annual basis	Within the City's Street inventory, the condition of approximately 68 miles of local/residential streets has deteriorated to the point that reconstruction of the structure is the only option
Maple Island Improvements	Upgrades	Not Programmed-Pending Funding	\$2,000,000	This project will upgrade the roundabout at Maple Island Road and International Way. It will also extend the Maple Island Loop Road to the north along the Maple Island Slough.
Intelligent Lighting Controls	Upgrades	Not Programmed-Pending Funding	\$700,000	An Intelligent lighting system will monitor street light performance, enhancing operations and maintenance
Main Street Lighting	Upgrades	Not Programmed-Pending Funding	\$1,000,000	The project will add lighting to Main Street from 20th to 72nd by placing lights on existing poles where available and installing new poles where necessary
Pedestrian Crossing Enhancements	Safety	Not Programmed-Pending Funding	\$750,000	Several crossings have been identified that would receive a safety benefit from the installation of a RRFB (Rectangular Rapid Flashing Beacon) or a PHB (Pedestrian Hybrid Beacon).
Signal Communications	Upgrades	Not Programmed-Pending Funding	\$500,000	The project will evaluate central system software, fiber optic lines, wireless radio communication, and existing copper connections

Unfunded/Partial Funded Projects List - Streets and Transportation

Project Title	Project Category	Project Status	Estimated Funding Need	Notes
Glenwood Riverfront Path	Expansion	Not Programmed-Pending Funding	\$1,000,000	The project will complete required Federal National Environmental Policy Act (NEPA) documentation and approval for the new Glenwood Multi-Use Riverfront Path, including locating the path alignment along the Willamette River and completing pathway design
28th St Bike Lanes		Not Programmed-Pending Funding	TBD	Currently scoping for potential ARTS grant funding
14th St Bikeway		Not Programmed-Pending Funding	TBD	Currently scoping for potential ARTS grant funding
E St Bikeway		Not Programmed-Pending Funding	TBD	
48th Street / G Street / 52nd Street Path		Not Programmed-Pending Funding	TBD	
McKenzie River Path		Not Programmed-Pending Funding	TBD	

FY23-FY24 Capital Project Status Update - Wastewater

Project Title	Project Number	In Previous CIP	Project Category	Project Status	FY24 Budget (\$ in Thousands)	Total Cost to Complete (\$ in Thousands)	Notes
Jasper Trunk - Phase 3	P21065	X	Expansion	Design	\$2,343		Design is nearing completion, construction anticipated FY24
S. 28th Sewer Extension	P21166	X	Expansion	Completed		\$594	Constructed in FY22
42nd -48th Sewer Rehabilitation	P21170	x	Repair and Preservation	Completed		\$764	Constructed in FY22
S 37th St., S 38th St., Osage St., and Janus St. Sewer Extension	P21181		Expansion	Completed		\$1,422	Constructed in FY23
70th St. Wastewater Basin Rehab	P21185		Repair and Preservation		\$2,000		
72nd St. Wastewater Basin Rehab	P21186		Repair and Preservation		\$1,500		
Flow Monitoring 2022	P41064	X	Studies	Design	\$176		Work on Phase 3 microbasin modeling continues. Rehab projects have been identified and will be programmed in the CIP
Wastewater Master Plan	P41062	X	Studies	Planning	\$500		Request for proposals to be advertised in 2nd qtr of FY22
CMOM Planning & Implementation	P61000	X	Repair and Preservation	Ongoing Program	\$1,700		Funds to be programmed to repair and preservation projects identified through modeling
Wastewater Repair	P61001	X	Repair and Preservation	Ongoing Program	\$500		Funds programmed each year for unforeseen emergency repair work.
Local Sewer Extension	P61013	X	Expansion	On-Hold	\$1,000		Funds set aside to extend wastewater service to annexed area within the City that are not currently served.

Wastewater Repair

Department Development and Public Works

Project Description:

This project involves the contracted repair or replacement of sanitary sewers that require either emergency rehabilitation as a result of Sanitary Sewer Overflows or the prospect of impending system failures. The DPW Operations Division addresses an average of four (4) emergency repairs of this nature annually.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Wastewater Master Plan
- CMOM Program

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Wastewater Capital	\$250	\$250	\$250	\$250	\$250	\$1,250
Wastewater Reimbursement SDC	\$250	\$250	\$250	\$250	\$250	\$1,250
Total	\$500	\$500	\$500	\$500	\$500	\$2,500

CMOM Planning & Implementation

Department Development and Public Works

Project Description:

The City of Springfield's obligations in the 2001 Wet Weather Flow Management Plan (WWFMP) were completed by January 2010; however it is necessary for the City to continue to fund wastewater system rehabilitation and Inflow and Infiltration (I/I) reduction projects. These additional projects will be identified through the Wastewater Master Plan Update project and the Capacity, Management, Operations and Maintenance (CMOM) program that will likely be included in the next NPDES permit for the wastewater system.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Wastewater Master Plan
- Regulatory Requirements

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Wastewater Capital	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$10,000
Total	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$10,000

Local Sewer Extensions

Department Development and Public Works

Project Description:

Within the City of Springfield's city limits and Urban Growth Boundary (UGB) are several areas that are fully developed, but lack wastewater service. The project would fund extending wastewater pipes to these areas upon request of affected property owners or annexation, with some or all of the cost possibly reimbursable through assessments. Increased infrastructure will increase the need for more maintenance personnel which impacts the wastewater operations budget. The estimated increase in the wastewater operations cost is \$1,600 per 1,000 feet of new pipe.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

- Wastewater Master Plan
- Council Goal to provide for development

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Wastewater Capital	\$500	\$500	\$500	\$500	\$500	\$2,500
Total	\$500	\$500	\$500	\$500	\$500	\$2,500

Harbor Drive Pump Station

Department Development and Public Works

Project Description:

The S. 2nd St./Harbor Drive area is currently not have sanitary sewer service. The Council has directed staff to analyze areas within the UGB where investment in infrastructure may spur residential development, and investment in the Harbor Drive Pump Station provides a key service to 58 buildable acres. This project will construct a sanitary pump station and associated pipeline to connect to the dry lines previously constructed.

Project Status:

Not Started

Specific Plans/Policies Related to this Project:

Wastewater Master Plan

Council Goal to provide for development

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Wastewater Capital						
Wastewater Improvement SDC	\$1,000					\$1,000
Total	\$1,000	\$0	\$0	\$0	\$0	\$1,000

Unfunded Projects List - Wastewater

Project Title	Project Category	Project Status	Estimated Funding Need (\$ in thousands)	Notes
19th Street Sewer Upgrade	Upgrades	Not Programmed-Pending Funding	\$1,500	Replace a 12" pipe with a new 18" pipe. With model analysis this upgrade may not be necessary. Will be evaluated with Master Plan Update
Marcola Rd Sewer	Expansion	Not Programmed-Pending Funding	\$500	Provide sewer service to area within the UGB currently not annexed.
Main Street Improvements - Unit 1	Expansion	Not Programmed-Pending Funding	\$2,100	Upgrade pipeline capacity to support future growth in East Springfield
Peacehealth-Riverbend PS	Expansion	Not Programmed-Pending Funding	\$3,189	New pump station to support development within the Riverbend campus.
Main Street Improvements - Unit 2	Expansion	Not Programmed-Pending Funding	\$1,145	Upgrade pipeline capacity to support future growth in East Springfield
Hayden Lo PS	Upgrades	Not Programmed-Pending Funding	\$1,050	Upgrade existing pumps to maintain capacity and avoid potential SSOs. Project will be reevaluated as some work has been completed through routine maintenance.
River Glen PS	Upgrades	Not Programmed-Pending Funding	\$950	Upgrade existing pumps to maintain capacity and avoid potential SSOs. Project will be reevaluated as some work has been completed through routine maintenance.

FY23-FY24 Capital Project Status Update - Building and Facilities

Project Title	Project Number	In Previous CIP	Project Category	Project Status	FY24 Budget (\$ in Thousands)	Total Cost to Complete (\$ in Thousands)	Notes
Building Preservation	P61011	X	Repair and Preservation	Ongoing Program	\$306		Program funds preservation and repairs of City owned buildings. (e.g., City Hall Seismic upgrades)
Booth Kelly Roof Replacement	P21084	X	Repair and Preservation	Not Started	\$100		
Booth Kelly Building Repair	P21170	x	Repair and Preservation	Not Started	\$40		
Firing Range Decommissioning	P21075	X	Water Quality	On-Hold	\$25		Initial study has been completed in coordination with DEQ

Building Preservation

Department Development and Public Works

Project Description:

Perform preservation, capital maintenance and repair projects on City-owned buildings, including but not limited to City Hall, 5 Fire Stations, Museum, Justice Center, Jail, Depot, Carter Building and Maintenance Facilities. Projects can include the repair, renovation or replacement of structural, mechanical, electrical, and plumbing systems. Other projects can include systems preservation such as, painting, roofing, lighting, alarm and elevator projects as well as repair and/or upgrades to aesthetic and architectural elements.

Project Status:

Ongoing Program

Specific Plans/Policies Related to this Project:

Council Goals

Capital Costs (\$ in thousands)

Fund	2025	2026	2027	2028	2029	Total
Building Preservation Fund	\$270	\$270	\$270	\$270	\$270	\$1,350
Total	\$270	\$270	\$270	\$270	\$270	\$1,350

Unfunded Projects List - Buildings and Facilities

Project Title	Project Category	Project Status	Estimated Funding Need	Notes
City Storage Facility	Expansion	Not Programmed-Pending Funding	\$300,000	
Library	Expansion	Not Programmed-Pending Funding	\$28,000,000	
City Hall Renovation	Upgrades	Not Programmed-Pending Funding	\$4,000,000	
Fire Station 4	Upgrades	Not Programmed-Pending Funding	\$6,100,000	
City Hall HVAC	Upgrades	Not Programmed-Pending Funding	\$1,800,000	
Energy Efficiency Projects	Upgrades	Not Programmed-Pending Funding	\$200,000	
Downtown Mill Plaza Design & Construction	Expansion	Not Programmed-Pending Funding	\$3,700,000	
City Hall Storage	Expansion	Not Programmed-Pending Funding	\$100,000	

AGENDA ITEM SUMMARY

Meeting Date: 11/7/2023
Meeting Type: Regular Meeting
Staff Contact/Dept.: Andy Limbird, DPW
Staff Phone No: 541-726-3784
Estimated Time: 30 Minutes
Council Goals: Encourage Economic Development and Revitalization through Community Partnerships

**SPRINGFIELD
PLANNING COMMISSION**

ITEM TITLE: REQUEST FOR METRO PLAN DIAGRAM AMENDMENT AND ZONE CHANGE FOR 4.99 ACRES OF PROPERTY AT THE NORTHEAST CORNER OF GAME FARM ROAD AND MAPLE ISLAND ROAD, CASES 811-23-000181-TYP3 AND 811-23-000182-TYP4

ACTION REQUESTED: Conduct a public hearing and forward a recommendation to the City Council regarding a proposal to amend the adopted *Metro Plan* diagram, *Gateway Refinement Plan* diagram and Springfield Zoning Map.

ISSUE STATEMENT: The applicant has submitted concurrent *Metro Plan* diagram and Zoning Map amendment applications for approximately 4.99 acres of vacant property adjoining the PeaceHealth Riverbend annex facility. The subject property is proposed to be redesignated from Campus Industrial (CI) to Commercial (C) and rezoned from Campus Industrial to Medical Services (MS). Redesignation and rezoning of the subject property is proposed to facilitate construction of a rehabilitation hospital on the site.

ATTACHMENTS:

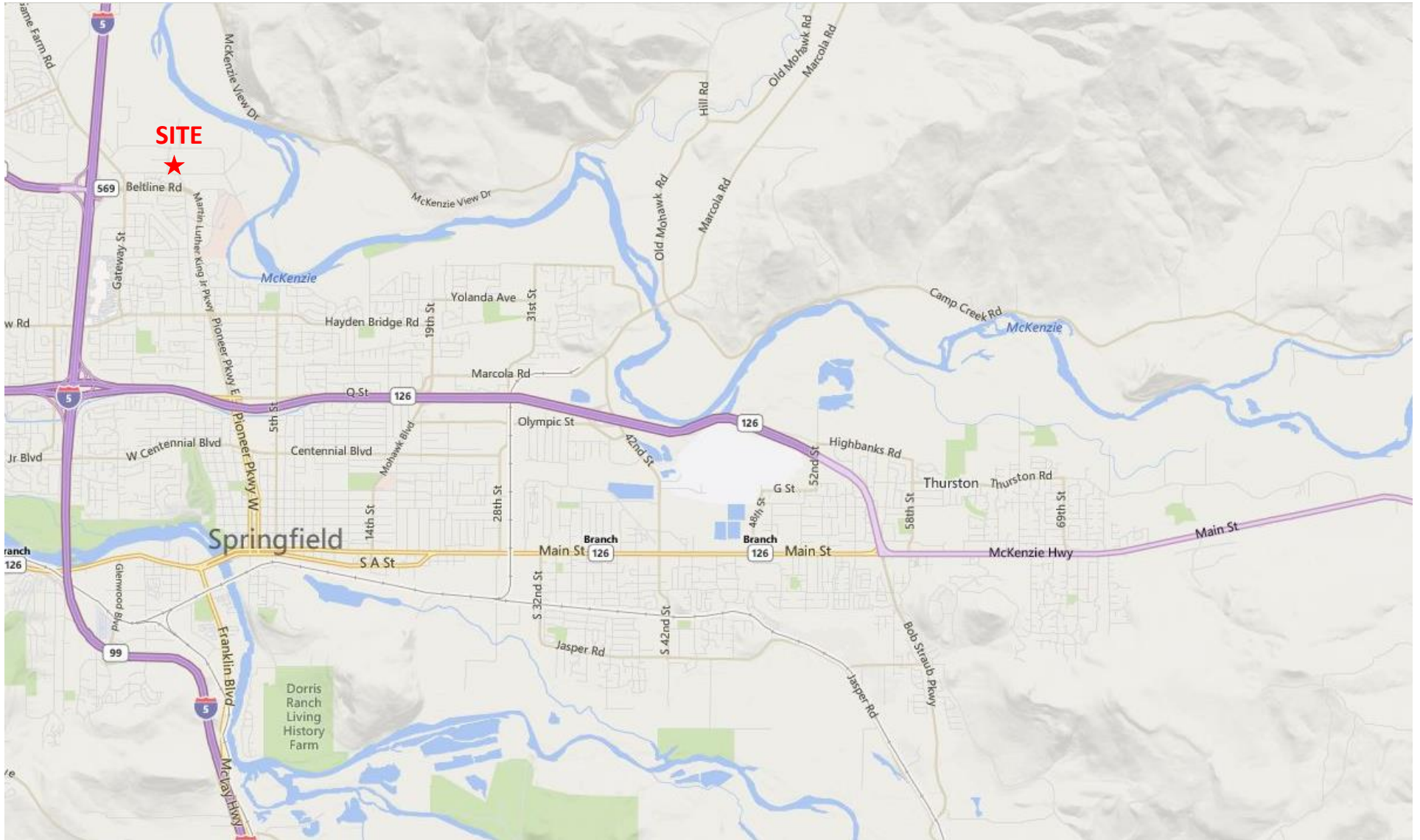
1. Site Diagrams for Metro Plan Amendment & Zone Change
2. Application and Exhibits – Metro Plan Amendment
3. Application and Exhibits – Zone Change
4. PC Order & Recommendation – Metro Plan Amendment Application 811-23-000182-TYP4
Exhibit 4B – Staff Report and Recommendations for Metro Plan Amendment
5. PC Order & Recommendation – Zoning Map Amendment Application 811-23-000181-TYP3
Exhibit 5B – Staff Report and Recommendations for Zoning Map Amendment

DISCUSSION: The subject property is comprised of four separate tax lots (or portions thereof) owned by PeaceHealth and the site adjoins the existing PeaceHealth Riverbend Annex facility located at 123 International Way. The site comprises approximately 4.99 acres and it is located at the northeast corner of the intersection of Game Farm Road and Maple Island Road. The property is zoned and designated for Campus Industrial use but is currently vacant and is not assigned a municipal street address (Assessor's Map 17-03-15-40, Tax Lots 800–1100). Concurrent with redesignation of the subject property, the *Gateway Refinement Plan* diagram would be amended to change the designation from Campus Industrial to Community Commercial.

The applicant is requesting the *Metro Plan* diagram amendment, *Gateway Refinement Plan* amendment and Zone Change for the property to facilitate future construction of a medical clinic (rehabilitation hospital) on the site. The current Campus Industrial zoning does not list medical clinics or hospitals as an allowable use on the site. Additionally, the proposed Medical Services zoning requires an underlying Commercial designation for the property. The Medical Services district is currently applied to the Sacred Heart Medical Center site because it accommodates hospitals, medical clinics, medical laboratories, medical and administrative offices and other related medical facility uses.

The Planning Commission is requested to conduct a public hearing on the proposal to amend the *Metro Plan* diagram, *Gateway Refinement Plan* diagram and Springfield Zoning Map at the regular meeting on November 7, 2023. The Planning Commission is requested to use this opportunity to review all materials submitted into the record and to accept testimony from the applicant and public in written, oral and electronic forms. After accepting all testimony, staff recommends that the Planning Commission reviews, deliberates, and issues a recommendation based on the totality of the information.

LOCATION OF PROPERTY SUBJECT TO PROPOSED COMPREHENSIVE PLAN AMENDMENT AND ZONE CHANGE



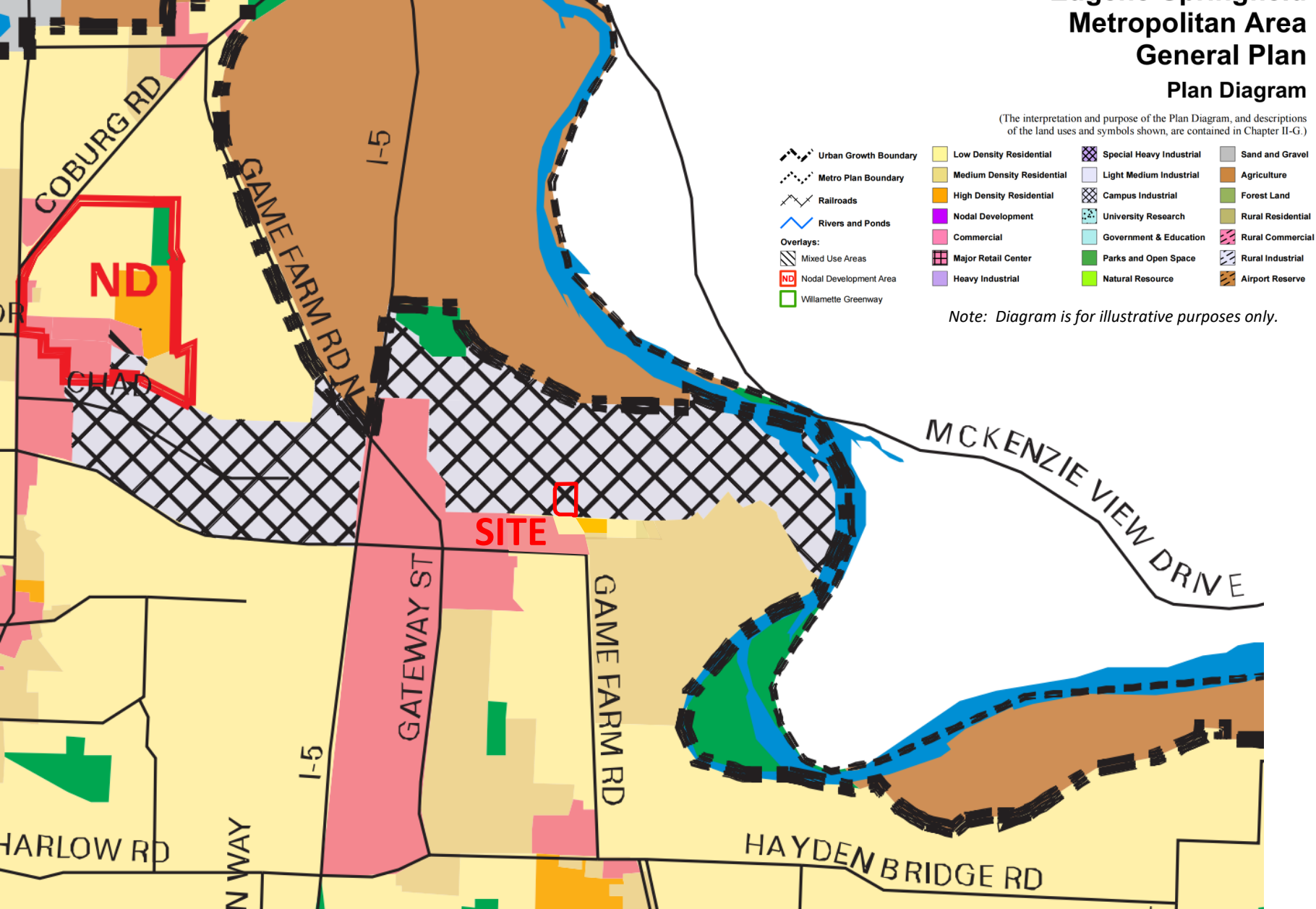
**811-23-000181-TYP3 & 811-23-000182-TYP4 – PROPOSED COMPREHENSIVE PLAN AMENDMENT AND ZONE CHANGE
FOR VACANT PROPERTY AT THE NORTHEAST CORNER OF GAME FARM ROAD AND MAPLE ISLAND ROAD
(ASSESSOR’S MAP 17-03-15-40, TAX LOTS 800–1100)
SITE CONTEXT MAP**



CURRENT METRO PLAN DESIGNATION

Eugene-Springfield Metropolitan Area General Plan Plan Diagram

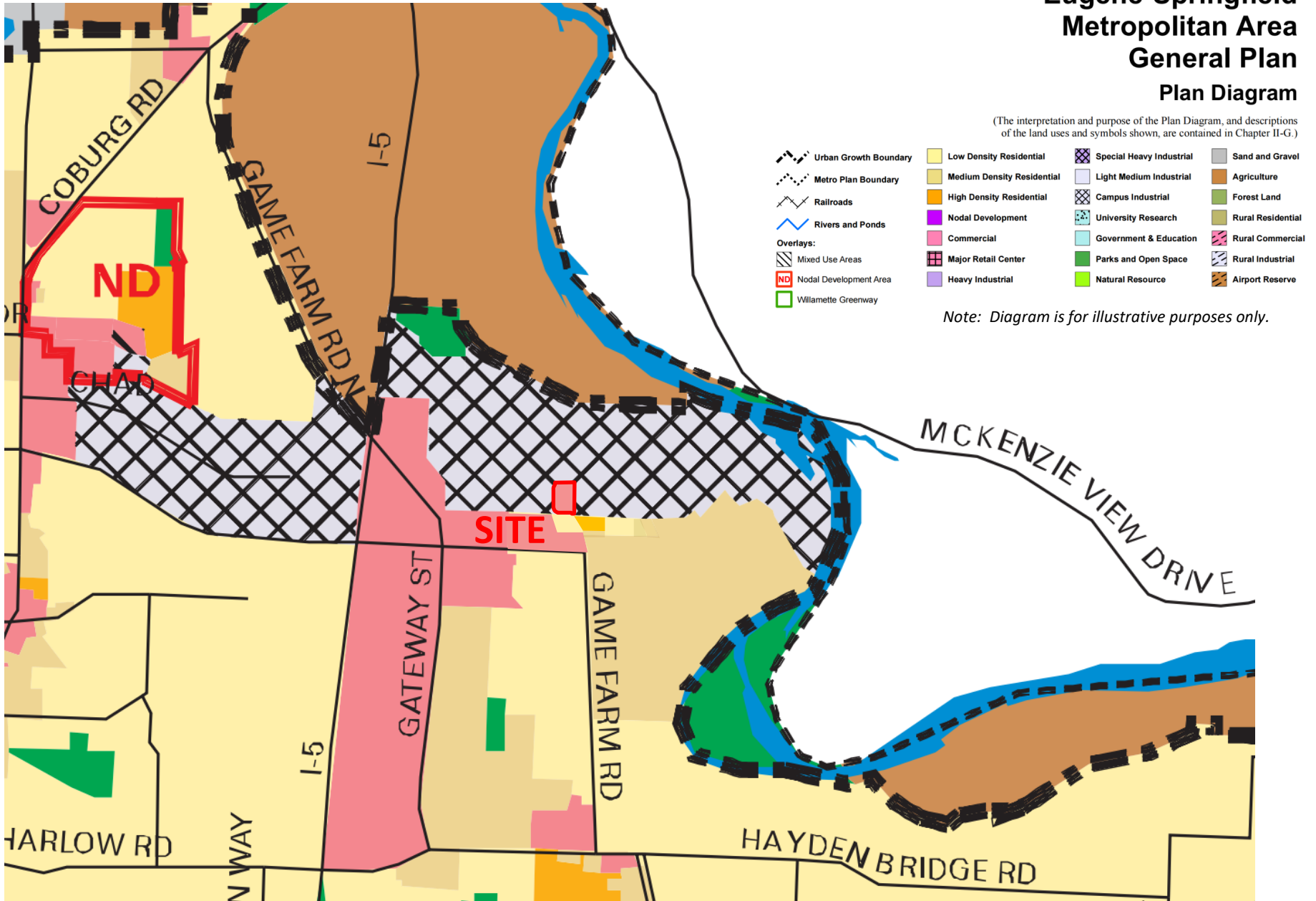
(The interpretation and purpose of the Plan Diagram, and descriptions of the land uses and symbols shown, are contained in Chapter II-G.)



PROPOSED METRO PLAN DESIGNATION

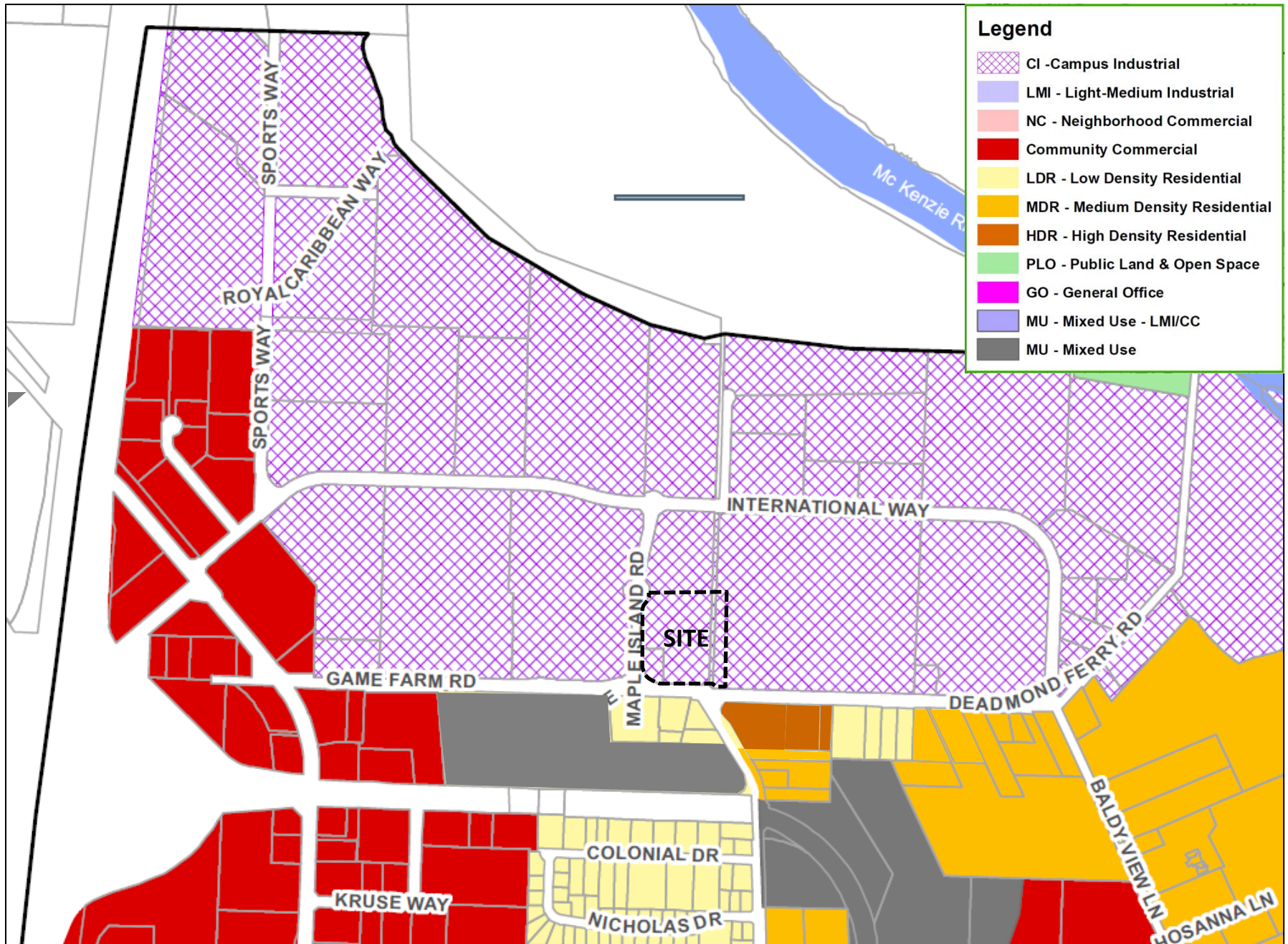
Eugene-Springfield Metropolitan Area General Plan Plan Diagram

(The interpretation and purpose of the Plan Diagram, and descriptions of the land uses and symbols shown, are contained in Chapter II-G.)

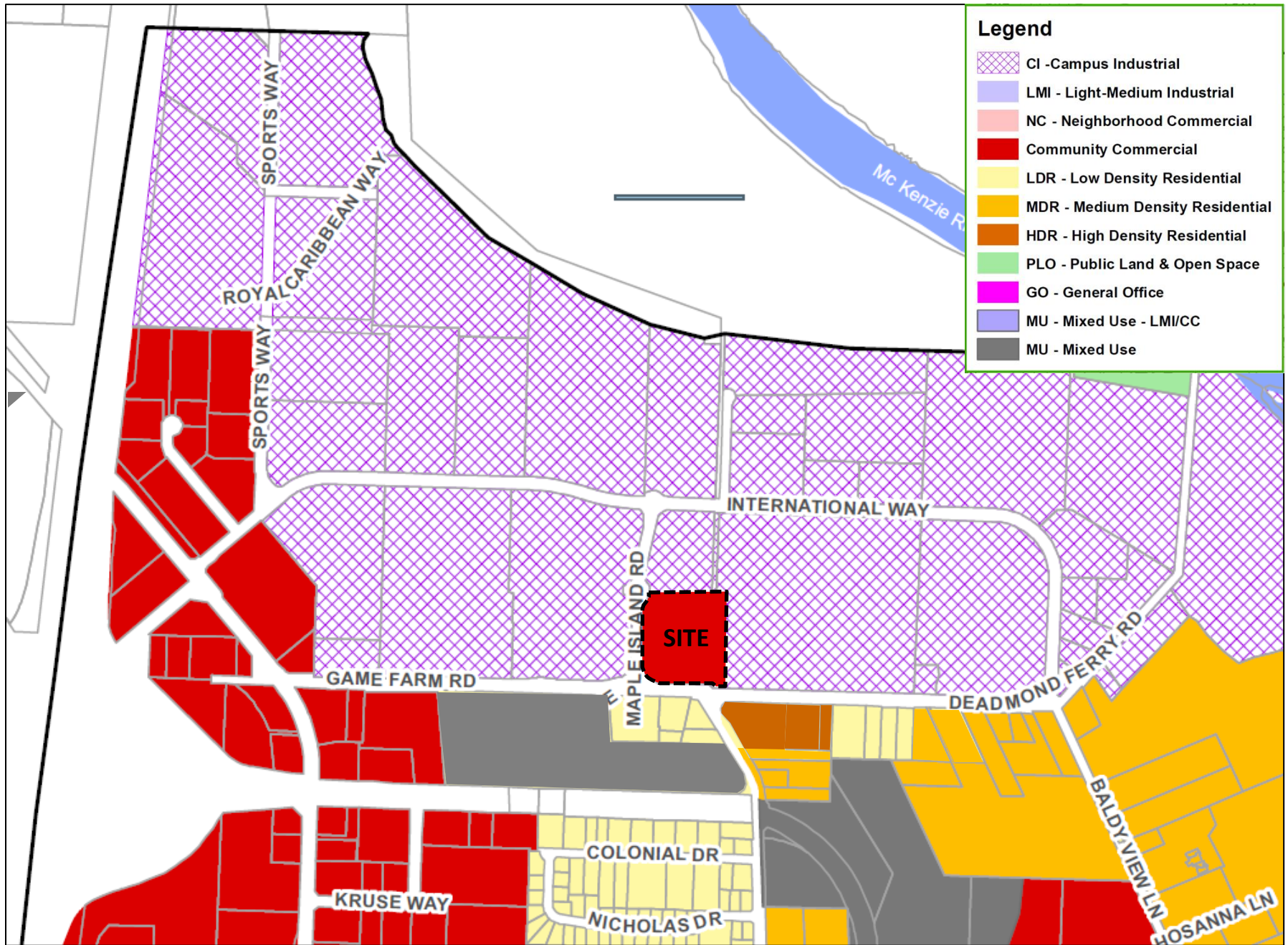


Note: Diagram is for illustrative purposes only.

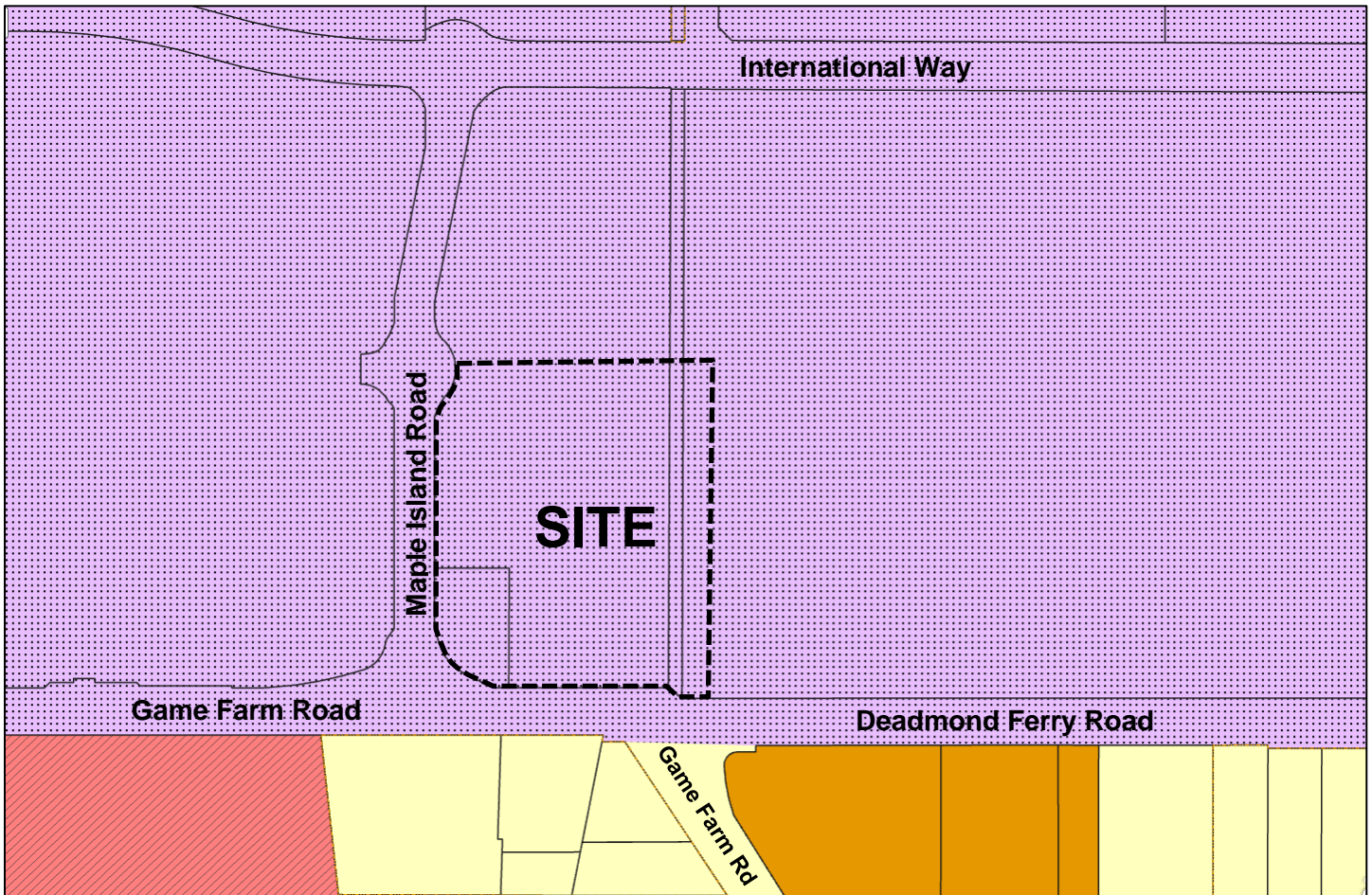
CURRENT GATEWAY REFINEMENT PLAN DESIGNATION




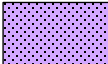



PROPOSED GATEWAY REFINEMENT PLAN DESIGNATION

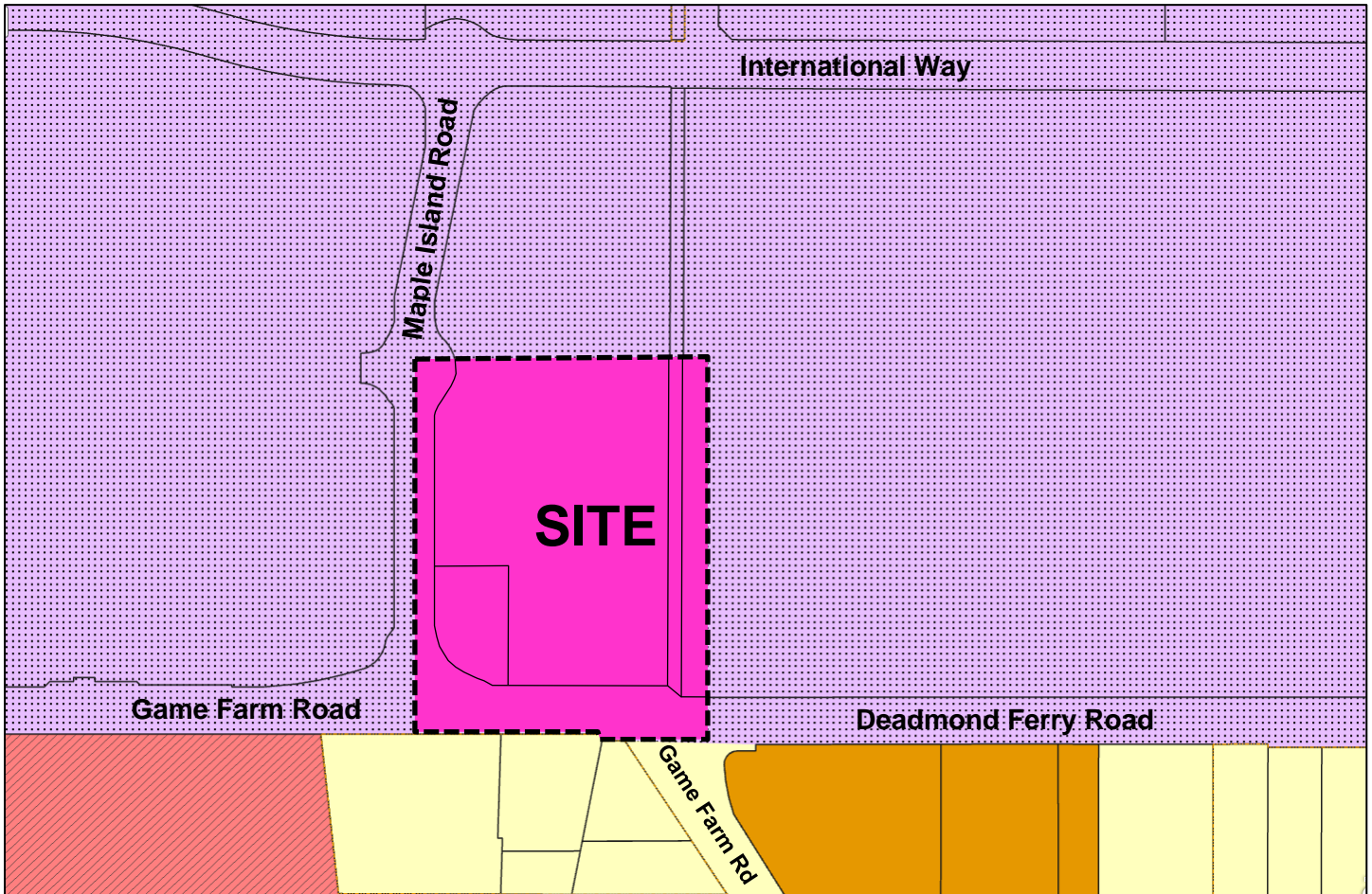





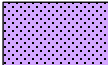

811-23-000181-TYP3 – PROPOSED ZONING MAP AMENDMENT FOR 4.99 ACRES
NE CORNER OF GAME FARM ROAD AND MAPLE ISLAND ROAD
(MAP 17-03-15-40, TAX LOTS 800–1100)
CURRENT ZONING



-  R-1 Residential District (R-1)
-  R-3 Residential District (R-3)
-  Mixed Use Commercial District (MUC)
-  Campus Industrial District (CI)
-  Medical Services District (MS)

811-23-000181-TYP3 – PROPOSED ZONING MAP AMENDMENT FOR 4.99 ACRES AND
ABUTTING PUBLIC RIGHTS-OF-WAY FOR GAME FARM ROAD AND MAPLE ISLAND ROAD
NE CORNER OF GAME FARM ROAD AND MAPLE ISLAND ROAD
(MAP 17-03-15-40, TAX LOTS 800–1100)
PROPOSED ZONING



-  R-1 Residential District (R-1)
-  R-3 Residential District (R-3)
-  Mixed Use Commercial District (MUC)
-  Campus Industrial District (CI)
-  Medical Services District (MS)

City of Springfield
Development & Public Works
225 Fifth Street
Springfield, OR 97477
Phone: (541) 726-3753
Fax: (541) 726-3689



Metro Plan Amendment Application, Type IV

Type of Plan Amendment (Check One)

- Type I:** is a non-site specific amendment of the Plan.
- Type II:** changes the Plan diagram; or is a site-specific Plan text amendment.

Property Subject to the Amendment (if applicable)

Tax Assessor Map 17-03-15-40 Tax Lot(s) 1000 and portion of 800, 900, 1100
Street Address Not assigned. RiverBend Annex is 123 International Way Acres 4.99 acres
Metro Plan Designation Campus Industrial Refinement Plan Designation Special Light Industrial

Description of Proposed Amendment (Attach additional sheets if needed)

This is a request to amend the Metro Plan Diagram to change the designation of the subject property from Campus Industrial to Community Commercial to allow development of a new PeaceHealth In-Patient Rehabilitation Facility on the southwest portion of the RiverBend Annex.

Applicant/Owner Information

Printed Name of Applicant PeaceHealth Phone: 541-225-0777

Applicant Signature [Signature] Date 8/9/2023
Mailing Address 1115 SE 164th Avenue Vancouver, WA 98683

Property Owner Signature [Signature] Date 8/9/2023
Mailing Address 1115 SE 164th Avenue Vancouver, WA 98683

For Office Use Only:

Case No. _____ Received By _____

Date Accepted as Complete _____

THE APPLICATION PACKET

A COMPLETE APPLICATION CONSISTS OF:

1. **A complete application page** (all of the sections on the opposite side of this page must be filled out).
2. **A statement containing Findings of Fact addressing the Criteria of Approval found in Springfield Development Code (SDC) 5.14-135.** In order for the Planning Commission and the City Council to consider an amendment of a plan text and/or diagram, there must be Findings of Fact submitted by the applicant. The Findings of Fact must show reason for the request consistent with the Criteria of Approval (shown below). If insufficient or unclear information is submitted by the applicant, the request may be denied or delayed.

The application must include requirements for addressing specific statewide goals that the Oregon legislature has said must be part of the amendment analysis. In particular, Statewide Planning Goal 9 Economy and Goal 10 Housing must be addressed for impact on buildable lands inventories, and a Goal 12 Transportation analysis must address criteria contained in OAR 660-012-060(1) and (2) of the Transportation Planning Rule (TPR). Goals 9, 10 and 12 are three of several "Applicable State-Wide Planning Goals" that must be specifically addressed in criteria (A) of the Springfield Development Code (SDC) 5.14-135.A. These specific items must be included in the application submittal to be considered a complete application.

In reaching a decision on these actions, the Planning Commission and the City Council shall adopt findings which demonstrate conformance to the following Criteria of Approval (SDC 5.14-135.

A Metro Plan amendment may be approved only if the Springfield City Council And other applicable governing body or bodies find that the proposal conforms to the following criteria.

- A. The amendment shall be consistent with applicable Statewide Planning Goals; and
- B. Plan inconsistency:
 1. In those cases where the Metro Plan applies, adoption of the amendment shall not make a Metro Plan internally inconsistent.
 2. In cases where Springfield Comprehensive Plan applies, the amendment shall be consistent with the Springfield Comprehensive Plan. (6331)
3. **A map to scale depicting the existing and proposed diagram change.** (If applicable)
4. **The application fee.** Refer to the *Development Code Fee Schedule* for the **appropriate fee.** A copy of the Fee Schedule is available at the Development & Public Works Department.

Revised 1/2017

City of Springfield
 Development & Public Works
 225 Fifth Street
 Springfield, OR 97477



Zoning Map Amendment, Type III

Required Project Information		<i>(Applicant: complete this section)</i>	
Applicant Name:	PeaceHealth	Phone	541-225-8777
Company:		Fax:	
Address:	1115 SE 164th Avenue Vancouver, WA 98683		
Applicant Signature:			
Property Owner:	PeaceHealth	Phone	541-225-8777
Company:		Fax:	
Address:	1115 SE 164th Avenue Vancouver, WA 98683		
Owner Signature:			
If the applicant is other than the owner, the owner hereby grants permission for the applicant to act in his or her behalf			
ASSESSOR'S MAP NO:	17-03-15-40	TAX LOT NO(S):	
Property Address:	Not assigned.	1000 and portions of 800, 900 and 1100	
Area of Request	Square Feet:	217,364.4	Acres: 4.99
Existing Use(s) of Property:	Vacant southeast portion of the PeaceHealth RiverBend Annex		
Description of The Proposal:	To change the zoning from CI Campus Industrial to CC Community Commercial. The zone change will allow the site to be developed with a new In-Patient Rehabilitation Facility.		
Required Property Information		<i>(City Intake Staff: complete this section)</i>	
Case No.:	_____	Date	_____
		Received by:	(initials) _____
Application Fee:	_____	Postage Fee:	_____
		Total Fee:	_____

Edited 7/19/2007 bjones

Zoning Map Amendment Submittal Requirements Checklist

1. **The application fee** - Refer to the Development Code Fee Schedule for the appropriate application and postage fee. A copy of the Fee Schedule is available at the Development & Public Works Department.
2. **Deed** - A copy of the deed to show ownership.
3. **Vicinity Map** - A map of the property and the surrounding vicinity which includes the existing zoning and plan designations. One copy must be reduced to 8 ½" by 11" which will be mailed as part of the required neighboring property notification packet.
4. **Findings** - Before the Planning Commission can approve a Zone/Overlay District Change Request, there must be information submitted by the applicant which adequately supports the request. The Criteria the Planning Commission will consider in making their decision is listed below. If insufficient or unclear data is submitted by the applicant, there is a good chance that the request will be denied or delayed. It is recommended that you hire a professional planner or land use attorney to prepare your findings.

Criteria of Approval (Quasi-judicial)

SDC 12.030 requires that in reaching a decision on these actions, the Planning Commission or Hearings Official may approve, approve with conditions or deny a quasi-judicial Zoning Map amendment based upon approval criteria (a)-(c), below.

- (a) Consistency with the Metro Plan policies and the Metro Plan Diagram;
- (b) Consistency with applicable Refinement Plans, Plan District maps, Conceptual Development Plans and functional plans; and
- (c) The property is presently provided with adequate public facilities, services and transportation networks to support the use, or these facilities, services and transportation networks are planned to be provided concurrently with the development of the property.

**PeaceHealth – RiverBend Annex
In-Patient Rehabilitation Facility
Metro Plan Amendment
& Zone Change Applications**



Submitted to:
City of Springfield
Development & Public Works
225 Fifth Street
Springfield, OR 97477

Submitted for:
PeaceHealth
1115 SE 164th Avenue
Vancouver, WA 98683

Submitted by:
Mike Reeder
Law Office of Mike Reeder
345 West 4th Ave, Suite 205
Eugene, OR 97401

Submittal Date: August 9, 2023

**PeaceHealth – RiverBend Annex
In-Patient Rehabilitation Facility
Metro Plan Amendment & Zone Change Applications**

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EXHIBITS

- Exhibit A - County Assessor’s Map
- Exhibit B - Public Notice Map
- Exhibit C - Aerial Photo
- Exhibit D - Existing and Proposed Plan Designation Map
- Exhibit E - Existing and Proposed Zoning Map
- Exhibit F - Legal Description
- Exhibit G - In-Patient Rehabilitation Hospital Facility – Conceptual Site Plan
- Exhibit H - Traffic Impact Analysis and Transportation Planning Rule Analysis, Sandow Engineering

ITEMS SUBMITTED SEPARATELY

- Metro Plan Amendment Application Form, Type IV
- Zoning Map Amendment Application Form, Type III

I. SUMMARY

Project Name:	RiverBend In-Patient Rehabilitation Facility
Applications:	Plan Amendment & Zone Change – Request for Concurrent Processing as Type IV
Project Address:	Not Assigned to Subject Property East of the Subject Property the PeaceHealth RiverBend Annex building is addressed as 123 International Way.
Assessor's Map:	17-03-15-40
Tax Lots:	All of tax lot 1000 and portion of tax lots 800, 900, 1100
Project Size:	4.99 Acres
Existing Plan Designation:	Campus Industrial
Proposed Plan Designation:	Commercial
Existing Zoning:	CI Campus Industrial
Proposed Zoning:	CC Community Commercial
Applicant/Owner:	PeaceHealth 1115 SE 164th Ave Vancouver, Washington 98683
Applicant's Representative:	Mike Reeder Law Office of Mike Reeder 375 W. 4th Ave., Suite 205 Eugene, Oregon 97401 (541) 225-8777 mreeder@oregonlanduse.com

II. PROPOSAL

The property subject to this application (the “Subject Property”) is located at the northeast corner of Deadmond Ferry Road and Maple Island Road in Springfield, Oregon. The Subject Property is identified by Lane County Assessor’s Office as Map 17-03-15-40, Tax Lot 1000 and the southern portion of Tax Lots 800, 900, and 1100. Refer to Exhibit A- County Assessor’s Map and Exhibit B- Public Notice Map.

This proposal is a request for approval of a Plan Amendment to the Metro Plan (“Plan”) to re-designate 4.99 acres from Campus Industrial to Community Commercial and a zone change from Campus Industrial (CI) to Community Commercial (CC). Approval of this request will allow development of a new In-patient Rehabilitation Facility on the RiverBend Annex Campus.

III. SITE AND PLANNING PROFILE

a. Location

The Subject Property is located northeast of the intersection at Maple Island Rd and Deadmond Ferry Rd. The Subject Property is currently part of a larger development site known as the PeaceHealth (RiverBend) Annex. Refer to Exhibit C - Aerial Photo.

b. Land Use and Zoning

The Subject Property has a plan designation of Campus Industrial and is zoned CI Campus Industrial. The Subject Property is undeveloped. Refer to Exhibit D- Existing and Proposed Plan Designation Map and Exhibit E- Existing and Proposed Zoning Map.

c. Site Characteristics

The Subject Property is undeveloped and a portion contains remnants of an old orchard. The perimeter of the Subject Property is approximately the same grade as the adjacent public right-of-way and slopes downward to the orchard. The soil on the Subject Property is Malabon Silty Clay Loam.

d. Surrounding Area

The Subject Property is situated in an area developed with a mix of residential, commercial, and industrial uses.

- Deadmond Ferry Rd. borders the Subject Property along the South side.

- Maple Island Road borders the Subject Property along the West side.
- Property to the southeast and across Deadmond Ferry Rd is a 1.38-acre parcel zoned High Density Residential and identified as Assessor's Map 17-03-15-40, Tax Lot 2500. The property is part of a larger development site being developed as a senior assisted living facility. The property address is 3535 Game Farm Rd.



- Property to the south and across Deadmond Ferry is a 0.33-acre parcel zoned Low Density Residential and identified as Assessor's Map 17-03-15-40, Tax Lot 2600. The property contains a multi-family home and is assigned an address of 3548 E Game Farm Rd.
- Property to the south and across Deadmond Ferry is a 0.55-acre parcel zoned Low Density Residential and identified as Assessor's Map 17-03-15-40, Tax Lot 2900. The property contains a single-family dwelling and is assigned an address of 3562 E Game Farm Rd.
- Property to the south and across Deadmond Ferry is a 1.38-acre parcel zoned Low Density Residential and identified as Assessor's Map 17-03-15-40, Tax Lot 3000. The property contains a multi-family dwelling and is assigned an address of 3580 E Game Farm Rd.
- Property to the southwest and across Game Farm Rd is a 13.65-acre parcel zoned Mixed Use Commercial and identified as Assessor's Map 17-03-15-40, Tax Lot 3100. The property contains a mobile home park and is assigned an address of 3530 Game Farm Rd.

- Property to the west across Maple Island Road is a 13.55-acre parcel zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 0700. The property is developed commercial office headquarters and surface parking lots. The property address is 555 International Way.



- Property to the north across Industrial Way is a 7.05-acre parcel zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 0500. The property is a developed multi-tenant commercial/retail complex. The property is assigned an address of 400 International Way.



- Property to the north across Industrial Way is a 10.29-acre parcel zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 3201. The property is being developed for a religious building. The property is assigned an address of 300 International Way.

- Property to the north across Industrial Way is a 2.38-acre parcel zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 3600. The property is undeveloped land. The property is assigned an address of 200 International Way.
- Property to the east of the Subject Property is 25.11 acres zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 1100 and 1101. The property is developed with an Industrial Warehouse with Commercial Offices with an address of 123 International Way. This property is owned by the applicant and commonly known as The Annex.



e. Services & Resources

Fire	Eugene Springfield Fire and Life Safety
Police	Springfield Police
Water	Springfield Utility District (SUB)
Sewer	City of Springfield Sewer
Schools	Holt Elementary, Monroe Middle, and Sheldon High.
Power	Emerald People’s Utility District
Access	Game Farm Rd and International Way
Class I Stream	None
Floodplain	The Subject Property is determined to be outside the 500-year flood plain as determined by Flood Insurance Rate Map (FIRM) Panel 41039C1133F effective June 2, 1999
Historical	None
Archaeological	None
Sensitive Habitat	None
Water Quality	Not located within a water quality limited area per Lane Manual 13.010
Wetlands	None

IV. PLAN AMENDMENT APPROVAL CRITERIA & FINDINGS OF FACT

On January 19, 2023 the applicant participated in an informal meeting with City staff to share PeaceHealth’s vision for a new In-Patient Rehabilitation Facility in the RiverBend campus and to discuss a proposed Plan Amendment and Zone Change for the Subject Property.

Listed below are the Plan Amendment approval criteria in *bold italics* followed by the applicant’s findings of fact.

SDC 5.14.135 Criteria.

(A) The amendment shall be consistent with applicable Statewide Planning Goals;

The Findings of Facts below demonstrate the amendment is consistent with applicable Statewide Planning Goals.

The following applicable statewide planning goal statements have been summarized. The Oregon Land Conservation and Development Commission Goals and Guidelines are incorporated herein by reference, except as noted.

GOAL 1: Citizen Involvement - To develop a citizen involvement program to insure the opportunity for citizens to be involved in all phases of the planning process.

The City of Springfield has a citizen involvement program that is acknowledged by the State as in compliance with Goal 1. Citizens are provided the opportunity to be involved in all phases of the planning process. The proposal does not include any changes to the City’s citizen involvement program. The requirements under Goal 1 are met by adherence to the City’s provisions for citizen involvement as implemented by the Springfield Development Code (SDC).

GOAL 2: Land Use Planning - To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual basis for such decisions and actions.

Goal 2 requires local plans and regulatory measures to be consistent with statewide goals and land use decisions to be supported by an adequate factual basis. Goal 2 also requires that comprehensive plan amendments be adopted after a public hearing by the governing body that provides citizens an opportunity to comment on the proposed amendment.

Goal 2 establishes a land use planning process and policy framework as a basis for all land use decisions and requires the development of an adequate factual base to support these decisions. A minor change is one that does not have significant effect beyond its immediate area and is based on special studies or information. The justification for the particular change must be established.

The City of Springfield has adopted a comprehensive land use Plan amendment process, including specific standards that must be addressed to justify the change. In addition, Oregon Administrative Rules have been promulgated for the Exception Process. Substantial compliance with SDC 5.14.100 and the OAR provisions is addressed above and below in this written statement in compliance with the applicable provisions of Goal 2.

The SDC implements Goal 2 by providing state-acknowledged procedures and criteria governing land use decisions. This Plan amendment and related zone change application will be considered by the Planning Commission and City Council following two public hearings. This application is being processed in compliance with the requirements of SDC and thus complies with Goal 2.

GOAL 3: Agricultural Lands

The amendment is for property in the Springfield urban growth boundary and does not affect any land designated for agricultural use. Goal 3 is not applicable.

GOAL 4: Forest Lands

The amendment is for property in the Springfield urban growth boundary and does not affect any land designated for forest use. Goal 4 is not applicable.

GOAL 5: Open Spaces, Scenic and Historic Areas, and Natural Resources- To protect natural resources and conserve scenic and historic areas and open spaces.

Goal 5 requires the conservation of open space and the protection of numerous natural, cultural, historic and scenic resources. The goal applies to the following resources: riparian corridors, water and riparian areas and fish habitat, wetlands, wildlife habitat, mineral and aggregate resources, energy sources, natural areas, scenic views and sites, open space, groundwater resources, wilderness areas, historic resources, cultural areas, Oregon recreational trails, federal wild and scenic waterways and state scenic waterways. OAR 660-023-0010 and 0020 includes definitions, standards and specific rules applicable to each Goal 5 resource inventoried for conservation under the goal.

The Goal 5 resources listed above have been appropriately considered by the City of Springfield in the Plan. The property does not contain any inventoried Statewide Goal 5 resources. There are no known significant natural assets or historic resources on the property. The amendment does not propose a change to the City's list of Goal 5 resources or propose a change to any regulatory measures related to Goal 5. The proposed request will not allow new uses that could be in conflict with a significant Goal 5 resource site. Goal 5 is not applicable.

GOAL 6: Air, Water and Land Resource Quality- To maintain and improve the quality of the air, water, and land resources of the state.

Goal 6 is generally implemented during the comprehensive planning process and local regulations.

The City of Springfield's Environmental Services Division (ESD) coordinates the City's compliance with applicable state and federal environmental quality statutes. ESD manages multiple programs to maintain compliance with Goal 6 including 1) Water Resources Programs, such as implementing the City's National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit, 2) Industrial Pretreatment Program such as administering the Pollution Management Practice programs, and 3) Wastewater & Stormwater Programs. The proposed Plan amendment does not alter the City's acknowledged compliance with Goal 6.

As Goal 6 pertains to site-specific development, it requires that adequate protective measures are taken to ensure the maintenance of air, water and land quality. This Plan amendment will encourage development of land inside the city for medical services. All new development must comply with applicable local, state and federal air and water quality standards.

The general vicinity of the Subject Property is served by adequate on-site water and sanitation facilities. The proposed use of the Subject Property is not expected to produce or discharge any product or by-product that would degrade the quality of the air, water and land resources.

GOAL 7: Areas Subject to Natural Disasters or Hazards- To protect people and property from natural hazards.

The Metro Plan and the SDC are acknowledged to be in compliance with all applicable statewide land use goals, including Goal 7. The City of Springfield has existing programs, policies, zoning overlays, and development standards to regulate development in areas subject to natural disasters and hazards.

The Subject Property included is not in the City’s Floodplain Overlay District or the Hillside Development Overlay District. The proposed Plan amendment does not affect any City regulations or alter mitigation requirements for any properties in areas subject to natural disasters and hazards. Goal 7 is not applicable.

There are no known areas subject to natural disasters or hazards on the Subject Property. The Subject Property is not located within the 100-year flood hazard area as determined by Flood Insurance Rate Map (FIRM) Panel 41039C1133F effective June 2, 1999. FEMA has updated flood maps to better show the risk of flooding in Central Lane County. The revised pending maps continue to show the Subject Property in Zone X. The western and southern edge of the Subject Property are in an area with 0.2% annual chance of flood and the remaining portion is considered an area of minimal flood hazard.

GOAL 8: Recreational Needs- To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

Goal 8 addresses the recreational needs of Oregon residents and visitors. Provisions of this goal are appropriately implemented by a legislative process as part of periodic review of the Plan. The City of Springfield evaluated projected population growth, changes in community demographics, and the recreational needs of citizens and visitors. In compliance with Goal 8, the Metro Plan Diagram designates areas needed for Parks and Open Space. The subject property does not contain any land identified as needed to meet recreational needs or to satisfy the demand for recreational facilities.

The proposed Plan amendment and zone change will not affect the City’s supply of land available for recreation areas or recreational facilities. The proposed change from Campus Industrial to Commercial has no direct impact on recreational needs. Goal 8 is not applicable.

GOAL 9: Economy of the State- To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon’s citizens.

The purpose of Goal 9 is to diversify and improve the economy of the State and is primarily applicable to commercial and industrial development. In 2007 the Oregon legislature adopted House Bill 3337 establishing land use planning requirements for the Eugene-Springfield Metro area. ORS 197.304 established a mandate that Springfield and Eugene separately determine the projected 20-year need for housing and establish separate urban growth boundaries to meet housing needs. Although ORS 197.304 only required separate UGBs for housing, it was implicit that the two cities independently plan for other land use needs including employment growth, as defined by Goal 9.

Pursuant to Goal 9, in 2010, Lane County and the cities of Springfield and Eugene approved the Regional Prosperity Economic Development Plan providing a framework to better align regional economic growth with the area's assets and values.

Given the complexity involved with addressing ORS 197.304, the City of Springfield chose to phase adoption of various amendments to the Plan. To address OAR 660-009-0015(1) and (4), the City of Springfield prepared an Economic Opportunities Analysis (EOA) to review "the types and amounts of industrial and other employment uses likely to occur in the planning area". The EOA identified "Medical Services" as a Target Industry and typically located in Plan Designations Commercial, Commercial Mixed Use, High Density Residential Mixed Use, Light Medium Industrial Mixed use or Medium Density Mixed use, or Mixed Use.

The City of Springfield inventory of Commercial Industrial Buildable Land (CIBL) identified the Subject Property as vacant Campus Industrial Land. The CIBL also concluded there were not enough large vacant sites within the City of Springfield UGB to accommodate the projected economic growth. Relevant City of Springfield economic development strategies¹ include:

Provide sites with a variety of site characteristics to meet both commercial and industrial economic opportunities, including sites that are available for relatively fast development. This includes large sites for major employers.

Support and assist existing businesses within Springfield by assessing what kind of assistance businesses need and developing programs to meet that need.

Attract and develop new businesses, especially those related to regional business clusters. The City would like to build on the developing health care cluster, promote development of high-tech businesses, and attract sustainable businesses.

Maintain flexibility in planning through providing efficient planning services and developing planning policies to respond to the changing needs of businesses.

On December 5, 2016, the City of Springfield adopted Ordinance No. 6361 amending the Springfield urban growth boundary and adopting the Springfield 2030 Comprehensive Plan (2030 Plan) Economic and Urbanization Policy Elements. The 2030 Economic Element provides policy direction to address the community's commercial, industrial, and other employment development needs and supplants the Economic Element in the Metro Plan. The new In-Patient Rehabilitation Facility requires a site approximately 4.99 acres in size. Based on data provided by LCOG on June 1, 2023, inside the City of Springfield there are no vacant lots between 4.0 to 8.0 acres in size currently zoned Community Commercial or

¹ CIBL – EOA Summary, August 2015.

Medical Services. There are two vacant lots zoned Mixed Use Commercial that fall within this size range located on the PeaceHealth RiverBend campus across from the hospital. Although the MUC zone would allow an In-Patient Rehabilitation Facility, it is vital that the two properties remain available for uses that require proximity to the hospital.

The Plan amendment will allow the Subject Property to be designated Commercial and fulfill a key economic goal to support the health care cluster. The new In-Patient Rehabilitation Facility will provide a medical service offering patients a transition between services provided in a hospital and those typically available in an assisted care facility. The Subject Property is located close to other major medical facilities including the PeaceHealth RiverBend and McKenzie Willamette hospitals. The Subject Property is within a block of frequent transit service and bike routes.

The Plan amendment will not have an adverse impact availability of suitable sites for a variety of economic activities. The Plan amendment will provide the following economic benefits:

1. The change in plan designation will stimulate development of an underutilized portion of the RiverBend Campus and result in a more efficient land use pattern.
2. Strengthen the medical services sector in the City of Springfield helping to address a “target industry”.
3. Development of the site for the planned In-Patient Rehabilitation Facility is expected to add approximately 150 jobs and result in direct and indirect benefits to the local economy.

For further information regarding the Plan amendment’s compliance with the City of Springfield 2030 Economic Element, please refer to the analysis below regarding SDC 5.14.135(B).

GOAL 10: Housing- To provide for the housing needs of citizens of the state.

Goal 10 is intended to provide for the housing needs of the citizens of the State. This Goal is primarily implemented through the provisions of the Plan. The proposed Plan Amendment does not impact the buildable land supply for housing. The new expanded IPF will initially provide 50 beds for those needing 24-hour medical care exceeding what is typically offered in an assisted care facility or nursing home. The size of the site will allow the facility to add 10 more beds in the future. The facility will not provide the complete services of a hospital so being in close proximity to the two hospitals in Springfield will be beneficial.

GOAL 11: Public Facilities and Services- to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The Subject Property is located in the City of Springfield and a full range of urban services are available to serve the site and the anticipated development. The Plan amendment will not affect the City or other service providers' ability to provide public services.

GOAL 12: Transportation- To provide and encourage a safe, convenient and economic transportation system.

The intent of Goal 12 is implemented through the provisions of the State Transportation Planning Rule (TPR) (OAR 660, Division 12) which was adopted by LCDC in 1991. OAR 660-012-0060(1) requires that amendments to functional plans, acknowledged comprehensive plans, and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and level of service of the facility.

To determine whether the proposed amendments will significantly affect a transportation facility, the TPR lists specific criteria against which the proposed amendments are to be evaluated. The TPR provides that a plan or land use regulation amendment significantly affects a transportation facility if it:

- (a) Changes the functional classification of an existing or planned transportation facility;
- (b) Changes standards implementing a functional classification system;
- (c) Allows types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility; or,
- (d) Would reduce the level of service of the facility below the minimum acceptable level identified in the TSP (Transportation System Plan).

For a complete analysis of how the application meets Goal 12 and the Transportation Planning Rule, please see Exhibit H - Traffic Impact Analysis and Transportation Planning Rule Analysis prepared by Sandow Engineering.

GOAL 13: Energy Conservation- To conserve energy.

The Subject Property does not contain any non-renewable energy resources on the property. The proposed Plan amendment will not amend or affect any land use regulations enacted to implement Goal 13. All new development will be required to comply with local, state and federal codes related to energy conservation. Goal 13 is not applicable.

GOAL 14: Urbanization- To provide an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

The Subject Property is in the Springfield Urban Growth Boundary and inside the city limits. This Plan amendment does not propose to expand the Urban Growth Boundary thus does not require a review of the transition of rural to urban land uses. Therefore, the provisions of Goal 14 and OAR Chapter 660, Division 24 (Urban Growth Boundaries) are not applicable.

GOALS 15-19

Goals 15 through 18 are inapplicable to this application as they are geographically oriented and only apply to the Willamette River Greenway and coastal resources.

(B) Plan inconsistency:

- (1) In those cases where the Metro Plan applies, adoption of the amendment shall not make the Metro Plan internally inconsistent.*

The Plan amendment is a request to change the Plan designation for a specific site and does not include any proposed changes to the Plan text. Adoption of the Plan amendment will not cause any internal inconsistencies in the Metro Plan.

- (2) In cases where Springfield Comprehensive Plan applies, the amendment shall be consistent with the Springfield Comprehensive Plan. (6331)*

The Plan amendment is consistent with the Springfield Comprehensive Plan including the policies listed below in *bold italics*:

- Policy E.3 Work with property owners and their representatives to ensure that prime development and redevelopment sites throughout Springfield and its Urban Growth Boundary that are designated for employment use are preserved for future employment needs and are not subdivided or used for non-employment uses.*

The Plan amendment will facilitate development of an underutilized land and allow an in-patient rehabilitation facility to be developed on the site bringing about 150 new jobs to the City of Springfield at about 30 employees per acre.

Policy E.6 Facilitate short term and long term redevelopment activity and increased efficiency of land use through the urban renewal program, updates to refinement plans and the development review process.

The Plan amendment will facilitate efficient land use by increasing the overall intensity and density of the uses on the PeaceHealth RiverBend Annex campus.

Policy E.7 Where possible, concentrate development on sites with existing infrastructure or on sites where infrastructure can be provided relatively easily and at a comparatively low cost.

The Plan amendment concentrates development within the city limits on a site with available infrastructure for public facilities and services.

Policy E.16 Consider the economic opportunities provided by transportation corridors and seek to maximize economic uses in corridors that provide the most optimal locations and best exposure for existing and future commercial and industrial uses.

The Plan amendment will stimulate development on a multi-modal transportation corridor. The new employees will increase ridership on the EmX and use of the bike routes.

Policy E.28 Increase the potential for employment in the regional industry clusters, including: Health Care, Communication Equipment, Information Technology (Software), Metals (Wholesalers), Local Food and Beverage Production and Distribution, Specialty Agriculture, Wood & Forest Products, and Transportation Equipment.

The Plan amendment will facilitate development of a new in-patient rehabilitation facility increasing employment in the Health Care industry. This Plan amendment will increase the Health Care cluster in the Gateway are of the City.

Policy E.40 Provide the services, infrastructure, and land needed to attract the identified industry clusters, especially where they can increase economic connectivity among businesses.

The Plan amendment will increase the amount of land available for community commercial uses including the proposed in-patient rehabilitation facility.

V. ZONE CHANGE APPROVAL CRITERIA & FINDINGS OF FACT

SDC 5.22.115 (C) Zoning Map Amendment Criteria of Approval

(1) Consistency with applicable Metro Plan policies and the Metro Plan Diagram;

Following approval of the amendment to change the Plan Diagram designation from Campus Industrial to Commercial, the zoning map amendment will be consistent.

There are no mandatory Metro Plan policies related to the proposed zoning.

(2) Consistency with applicable Refinement Plans, Plan District maps, Conceptual Development Plans and functional plans;

The Subject Property is within the boundary of the Gateway Refinement Plan adopted on November 9, 1992. In 1992, the Subject Property was shown on the land use diagram as part of the McKenzie-Gateway Special Light Industrial site.

Below are applicable Gateway Refinement Plan policies in *bold italics* followed by the applicant's findings.

8.0 Provide for an efficient and flexible transportation system for the McKenzie-Gateway SLI Site.

9.0 Improve the appearance and effectiveness of the main approaches to the McKenzie-Gateway SLI Site. . . .

Through substantial public and private investments, significant capital improvements have improved the transportation system serving the McKenzie-Gateway SLI Site.

The proposed Zone Change will not have an adverse impact on the transportation system. The planned development will increase potential transit riders using the nearby EmX stations.

10.0 Mitigate the impacts of incremental (SLI) development on existing on-site (non-SLI) uses occupying the McKenzie-Gateway SLI Site.

Policy 10.0 recognized that full development of the McKenzie-Gateway SLI Site would likely occur incrementally. The Subject Property is located at the southwest corner of the RiverBend Annex campus. The impetus for the proposed Zone Change is the proposed use

of the Subject Property for a new expanded PeaceHealth RiverBend In-Patient Rehabilitation Facility. Through the site plan review process, any development will be required to comply with SDC standards including requirements for landscaping, building setbacks, parking, etc. Development of the Subject Property will be compatible with surrounding land uses including the remaining portion of the RiverBend Annex campus.

11.0 Ensure that development plans adequately consider the site's natural landscape features and amenities, and provide for the development needs of future developers.

The proposed Zone Change to Community Commercial will allow different uses than the existing CI Campus Industrial zone but many of the development standards, such as landscape requirements for parking areas and stormwater management will remain the same. The site plan review process requires that developers adequately consider existing site conditions.

12.0 Encourage the preservation and/or enhancement of reminders of the area's rich agricultural heritage, which are found in the McKenzie-Gateway SLI area.

The policy above is directed towards the City of Springfield encouraging historic preservation but is not a mandatory policy for reviewing a zone change request. The Subject Property contains a small remnant of a significantly larger filbert orchard to the west of the site. The applicant will consider ways to provide a reminder of the area's rich agricultural heritage such as a commemorative plaque or display of historic photos in the building. Regardless of zoning, any new development will require changes in grade making it impracticable to retain the orchard.

13.0 Ensure adequate storm drainage management planning emphasizing the minimization of negative impacts on water quality and quantity resulting from McKenzie-Gateway SLI Site development.

Any development of the Subject Property will require compliance with City, state and federal water quality standards and to review of proposed storm drainage for the site.

- (3) The property is presently provided with adequate public facilities, services and transportation networks to support the use, or these facilities, services and transportation networks are planned to be provided concurrently with the development of the property;***

The Subject Property is within the City limits and is presently provided with adequate public facilities, services and transportation networks to support the planned use. Please refer to ALTA/NSPS Land Title Survey demonstrating the adequacy of public infrastructure.

(4) Meet the approval criteria specified in SDC 5.14.100 when involving a Metro Plan Diagram amendment; and

The findings provided above related to SDC 5.14.100 are hereby incorporated by reference.

(5) Compliance with Oregon Administrative Rule (OAR) 660-012-0060, where applicable. (6443)

The applicant retained a licensed traffic engineer (Sandow Engineering) to prepare a Traffic Impact Analysis and Transportation Planning Rule Analysis. The report contains the following findings:

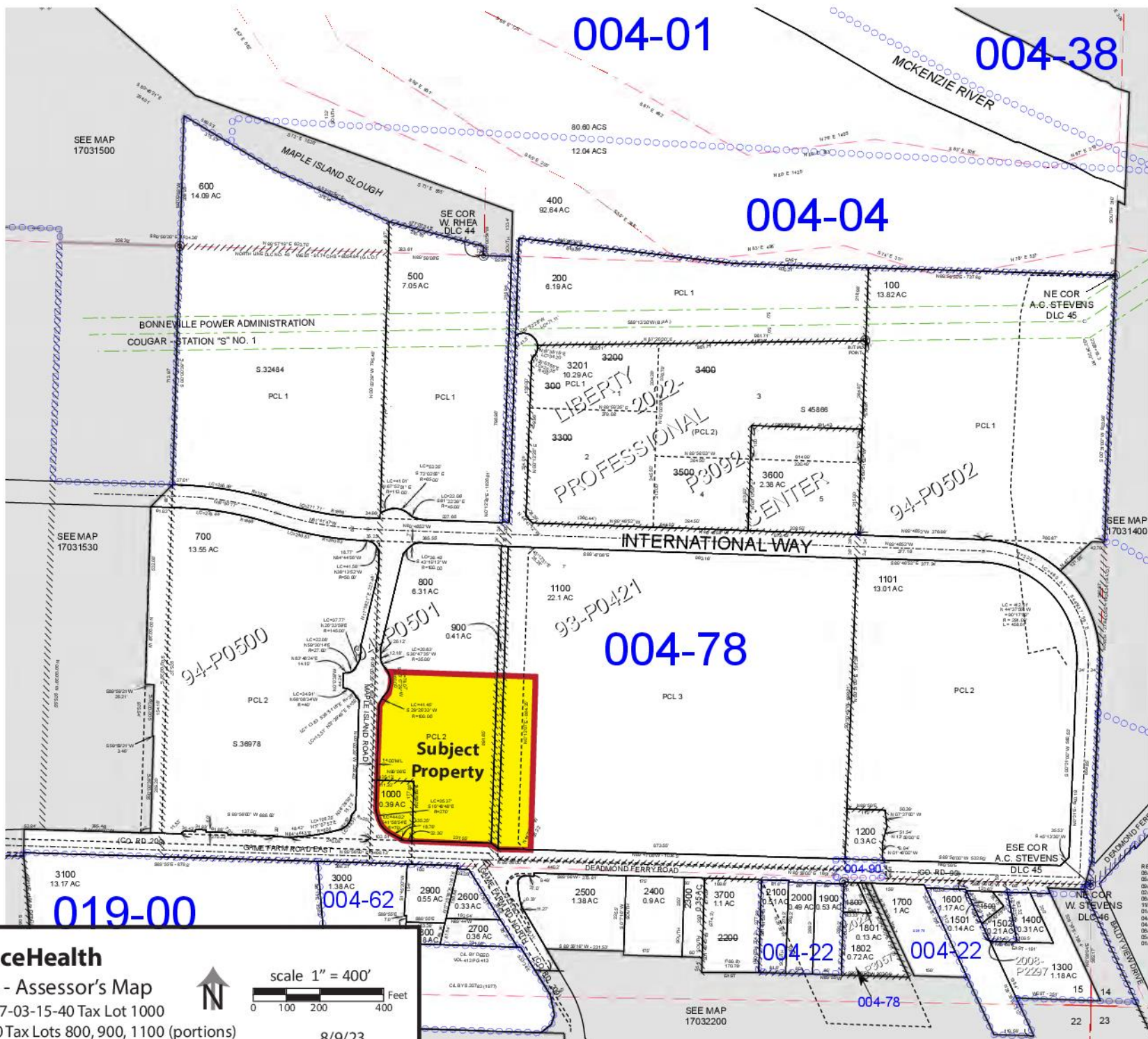
- The addition of development trips does not trigger any intersections to not meet the LOS standards.
- The intersection of Gateway Street at Beltline Road currently operates at LOS F during the PM peak hour. The zone change and proposed use will add less than a 3% increase in trips. This trip increase is insignificant in terms of impact on the intersection. Therefore, no mitigation is recommended.
- The addition of development traffic does not substantially increase queuing conditions.
- There is no off-site mitigation needed for this development.
- TPR findings are demonstrated to be met.

Based upon the findings above, the zone change complies with the Transportation Planning Rule (TPR). For further information, refer to Exhibit I – Traffic Impact Analysis and TPR Analysis – PeaceHealth Rehabilitation Hospital.

VI. CONCLUSION

The proposed amendments to the Metro Plan Diagram and the Springfield Zoning Map will stimulate development of the Subject Property and help strengthen the local economy.

This written narrative, exhibits, and technical reports provide substantial evidence to support approval of the Plan Amendment and Zone Change applications.



CANCELLED
 300
 1500
 2200
 1800
 3500
 3300
 3400
 3200

REVISIONS
 06/20/2011 - LCAT113 - CONVERT MAP TO 0
 08/14/2012 - LCAT174 - CORRECTION TO TA
 09/16/2014 - LCAT115 - CANC TL 1800 INFO:
 02/26/2015 - LCAT115 - CODE CHANGE TL 2
 09/15/2015 - LCAT115 - LA BETWEEN 2300
 10/09/2015 - LCAT118 - CODE CHANGE TL 2
 01/08/2016 - LCAT148 - CODE CHANGE TL 0
 04/08/2016 - LCAT148 - CODE CHANGE TL 1
 04/08/2016 - LCAT148 - CODE CHANGE TL 0
 08/21/2017 - LCAT174 - LA BETWEEN TL 34
 05/25/2022 - LCAT174 - CANC TL 1800 INFO:
 01/03/2023 - LCAT174 - CANC 3300, 3300, 340

PeaceHealth
 EXHIBIT A - Assessor's Map
 Map 17-03-15-40 Tax Lot 1000
 Map 17-03-15-40 Tax Lots 800, 900, 1100 (portions)
 8/9/23

scale 1" = 400'
 0 100 200 400 Feet

SEE MAP 17031530
 SEE MAP 17031530
 SEE MAP 17031530
 SEE MAP 17031400
 SEE MAP 17032200

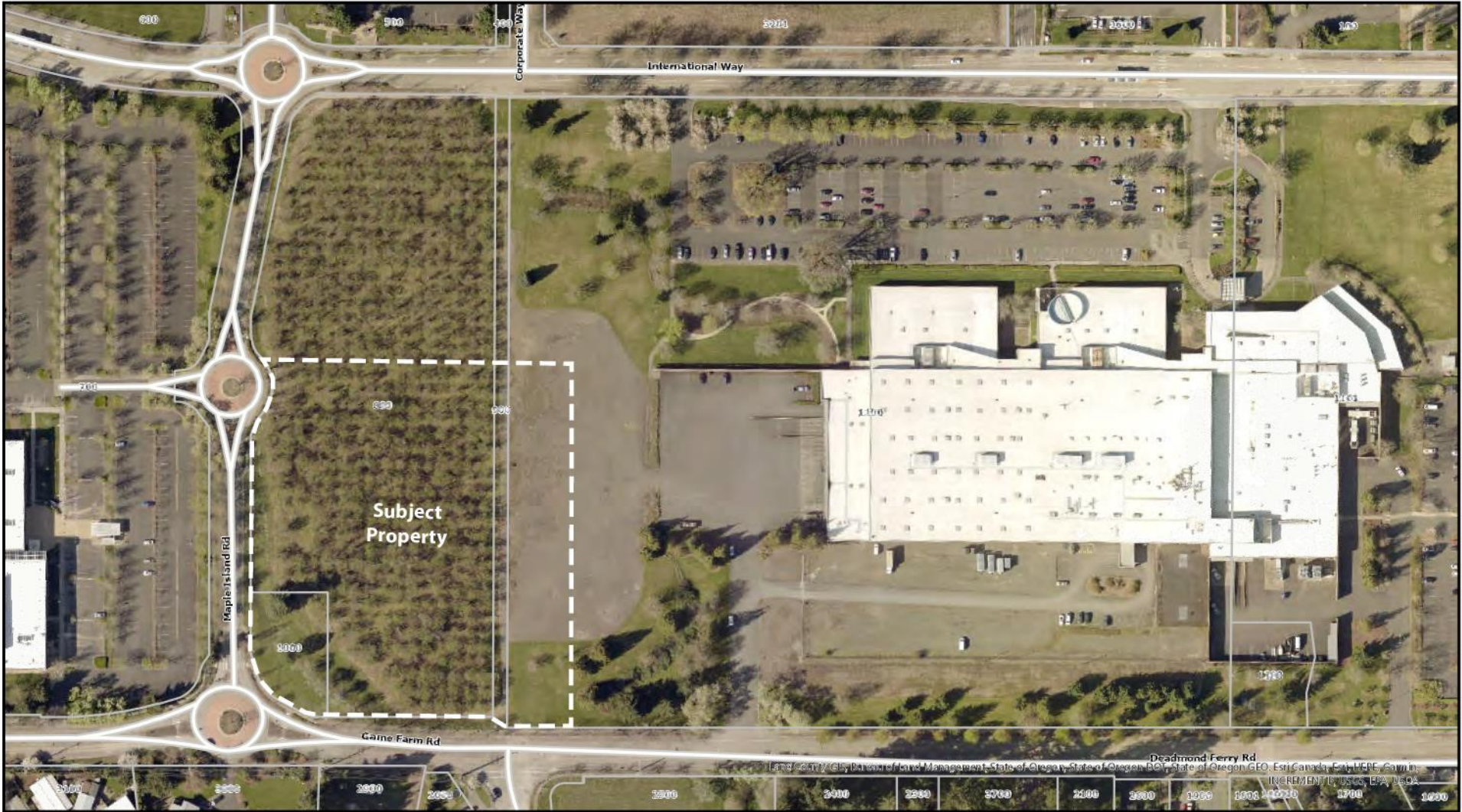


Lane County GIS, Bureau of Land Management, State of Oregon, State of Oregon DOT, State of Oregon GEO, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

The information on this map was derived from digital databases on the Lane County regional geographic information system. Care was taken in the creation of this map, but is provided "as is". Lane County cannot accept any responsibility for errors, omissions or positional accuracy in the digital data or the underlying records. Current plan designation, zoning, etc., for specific parcels should be confirmed with the appropriate agency. There are no warranties, expressed or implied, accompanying this product. However, notification of any errors will be appreciated.



PeaceHealth
 EXHIBIT B - Vicinity Map 8/9/23

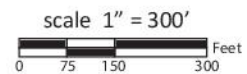


PeaceHealth

EXHIBIT C - Aerial Photo

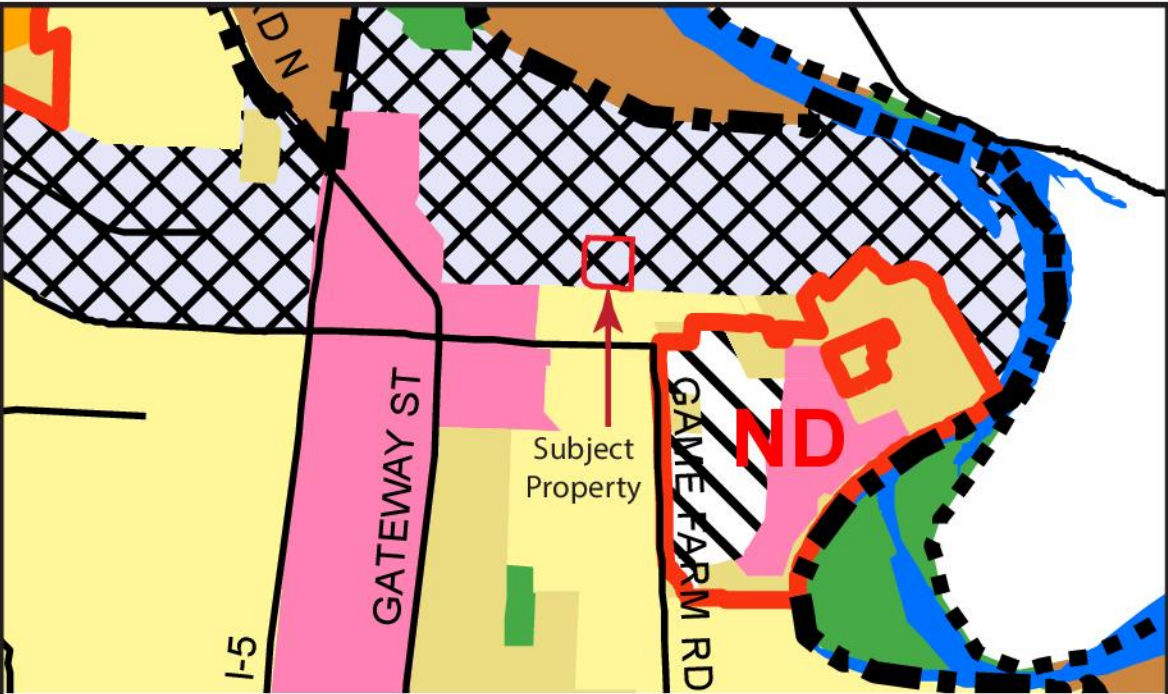
Map 17-03-15-40 Tax Lot 1000

Map 17-03-15-40 Tax Lots 800, 900, 1100 (portions)

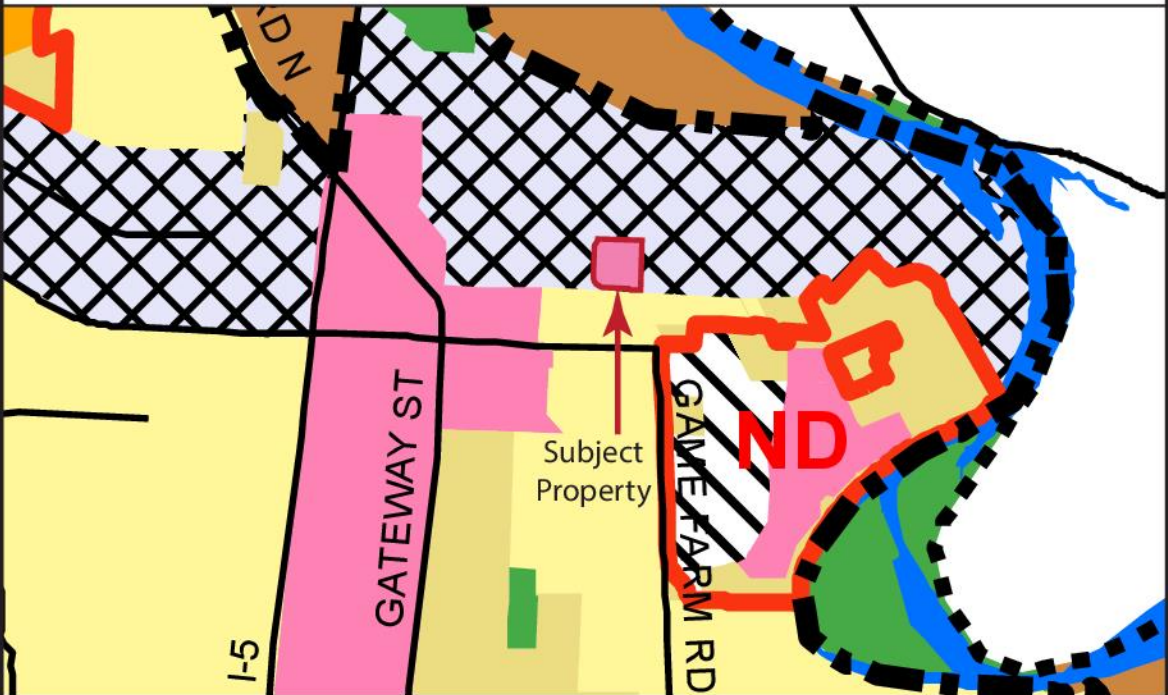


Eugene-Springfield Metropolitan Area General Plan Plan Diagram

(The interpretation and purpose of the Plan Diagram, and descriptions of the land uses and symbols shown, are contained in Chapter II-G.)



EXISTING PLAN DESIGNATION - Campus Industrial



PROPOSED PLAN DESIGNATION - Commercial

- | | | | |
|------------------|--------------------------|--|----------------------------|
| | Urban Growth Boundary | | Low Density Residential |
| | Metro Plan Boundary | | Medium Density Residential |
| | Railroads | | High Density Residential |
| | Rivers and Ponds | | Nodal Development |
| Overlays: | | | Commercial |
| | Mixed Use Areas | | Major Retail Center |
| | Nodal Development Area | | Heavy Industrial |
| | Willamette Greenway | | |
| | Special Heavy Industrial | | Sand and Gravel |
| | Light Medium Industrial | | Agriculture |
| | Campus Industrial | | Forest Land |
| | University Research | | Rural Residential |
| | Government & Education | | Rural Commercial |
| | Parks and Open Space | | Rural Industrial |
| | Natural Resource | | Airport Reserve |

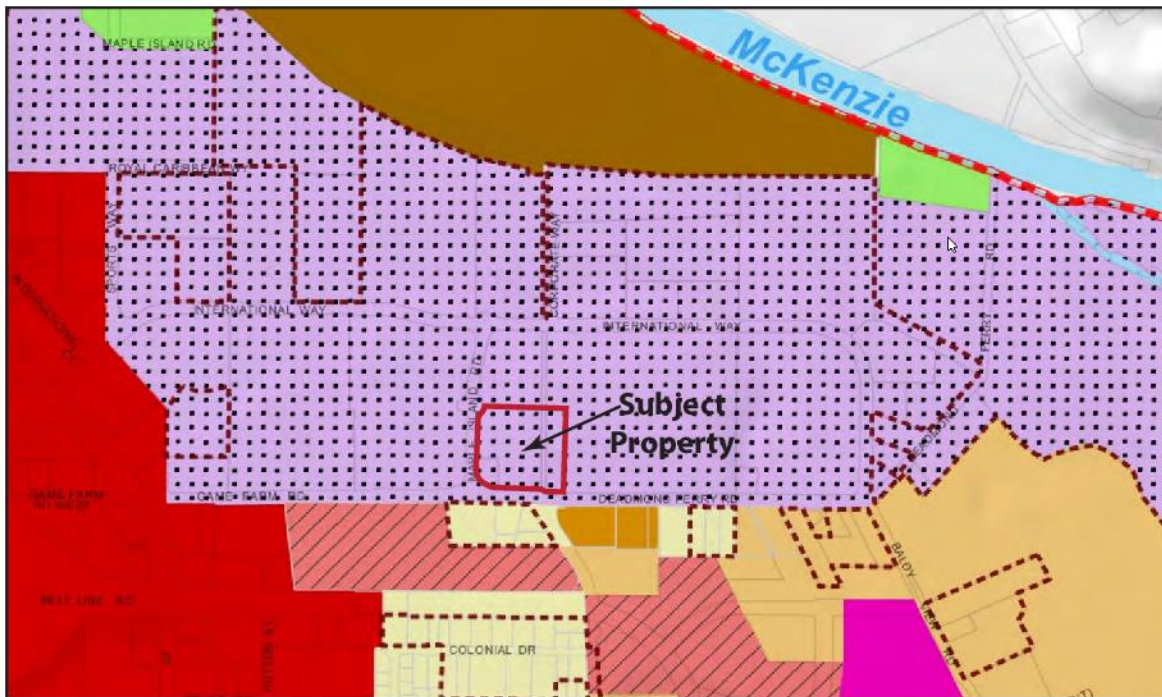
12/31/2010

scale 1" = 2000'

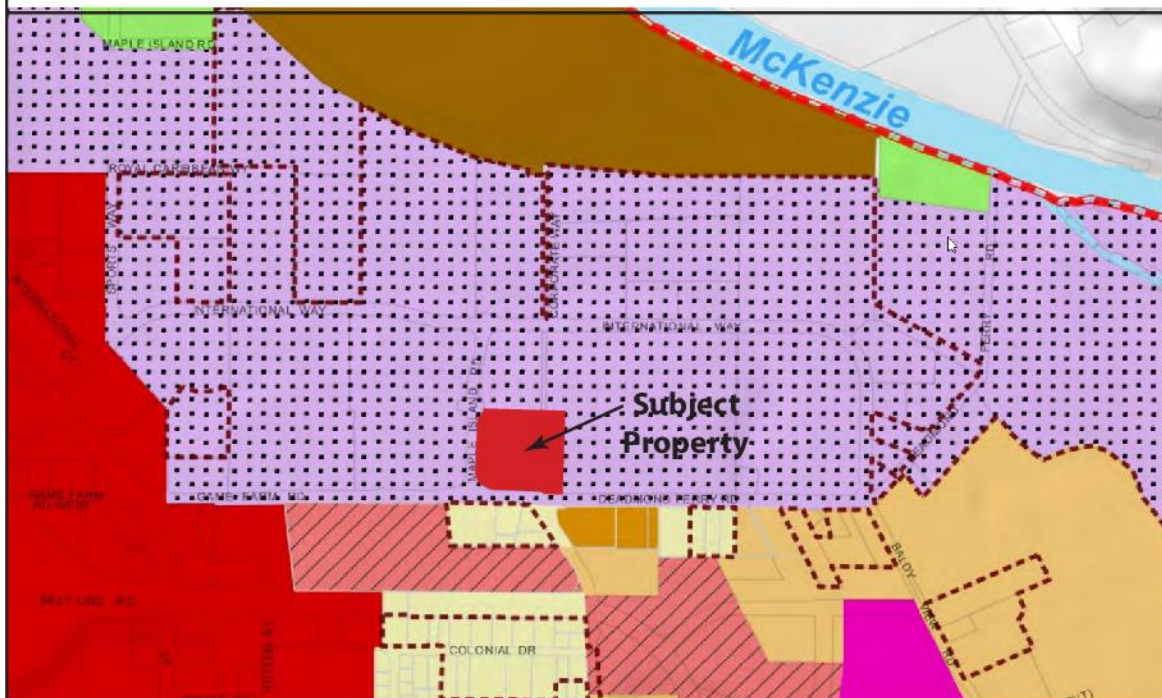
PeaceHealth

EXHIBIT D - Plan Map

8/9/23



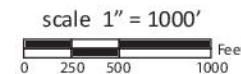
EXISTING ZONING - Campus Industrial



PROPOSED ZONING - Community Commercial

ZONING

-  Low Density Residential
-  Medium Density Residential
-  High Density Residential
-  Mixed Use Residential
-  Residential M.U. (Glenwood)
-  Neighborhood Commercial
-  Community Commercial
-  Major Retail Commercial
-  Mixed Use Commercial
-  Commercial M.U. (Glenwood)
-  Mixed Use LMI & CC
-  Campus Industrial
-  Light-Medium Industrial
-  Heavy Industrial
-  Special Heavy Industrial
-  Employment M.U. (Glenwood)
-  Booth-Kelly Mixed Use
-  General Office
-  Office Mixed Use (Glenwood)
-  Medical Services
-  Quarry & Mine Operations
-  Public Land & Open Space
-  Agriculture-Urban Holding Area



PeaceHealth
EXHIBIT E - Zoning Map

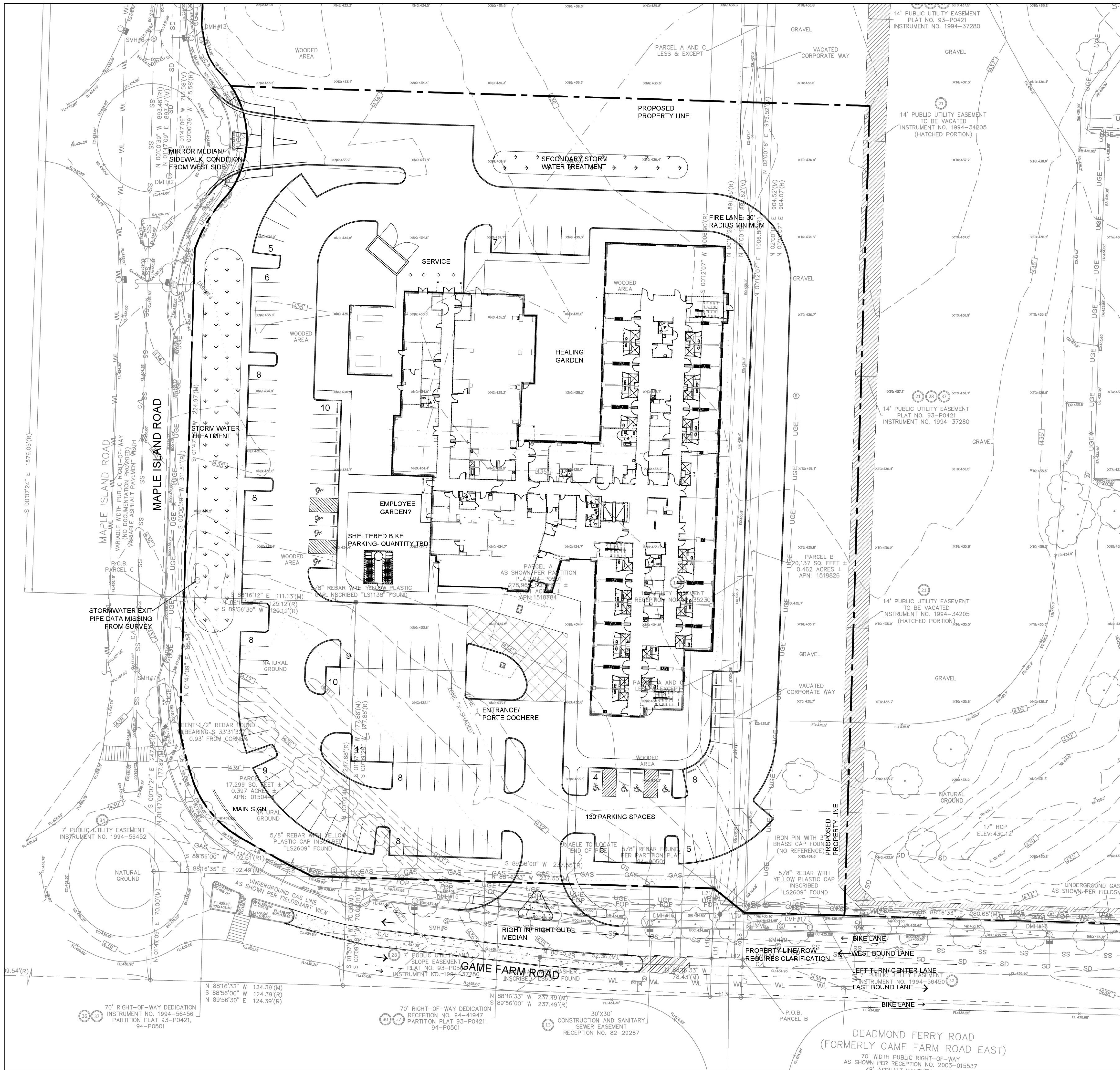
8/9/23

EXHIBIT F

23-0757.01 (Springfield, OR) AS-SURVEYED DESCRIPTION (FOR ZONING PURPOSES):

BEGINNING AT A 5/8-INCH REBAR FOUND; THENCE NORTH 88 DEGREES 16 MINUTES 33 SECONDS WEST, A DISTANCE OF 237.55 FEET, MORE OR LESS TO A 5/8-INCH REBAR WITH YELLOW PLASTIC CAP INSCRIBED "LS2609" FOUND; THENCE NORTH 88 DEGREES 16 MINUTES 19 SECONDS WEST, A DISTANCE OF 22.10 FEET, MORE OR LESS; THENCE NORTH 63 DEGREES 55 MINUTES 41 SECONDS WEST, A DISTANCE OF 18.74 FEET, MORE OR LESS; THENCE NORTH 60 DEGREES 32 MINUTES 51 SECONDS WEST, A DISTANCE OF 35.25 FEET, MORE OR LESS; THENCE WITH A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 45.62 FEET, WITH A RADIUS OF 70.00 FEET, HAVING A CHORD BEARING OF NORTH 40 DEGREES 11 MINUTES 6 SECONDS WEST, AND WITH A CHORD LENGTH OF 44.82 FEET, MORE OR LESS; THENCE WITH A COMPOUND CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 35.40 FEET, WITH A RADIUS OF 270.00 FEET, HAVING A CHORD BEARING OF NORTH 15 DEGREES 1 MINUTE 0 SECONDS WEST, AND WITH A CHORD LENGTH OF 35.37 FEET, MORE LESS TO A BENT 1/2-INCH REBAR FOUND; THENCE NORTH 1 DEGREE 47 MINUTES 9 SECONDS EAST, A DISTANCE OF 311.51 FEET, MORE OR LESS; THENCE WITH A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 41.75 FEET, WITH A RADIUS OF 100.00 FEET, HAVING A CHORD BEARING OF NORTH 31 DEGREES 14 MINUTES 21 SECONDS EAST, AND WITH A CHORD LENGTH OF 41.45 FEET, MORE OR LESS; THENCE WITH A REVERSE CURVE TO THE LEFT, HAVING AN ARC LENGTH OF 74.47 FEET, WITH A RADIUS OF 60.00 FEET, HAVING A CHORD BEARING OF NORTH 1 DEGREE 32 MINUTES 5 SECONDS EAST, AND WITH A CHORD LENGTH OF 69.78 FEET, MORE OR LESS; THENCE SOUTH 88 DEGREES 12 MINUTES 51 SECONDS EAST, A DISTANCE OF 414.32 FEET, MORE OR LESS; THENCE SOUTH 1 DEGREE 47 MINUTES 10 SECONDS WEST, A DISTANCE OF 523.27 FEET, MORE OR LESS; THENCE NORTH 88 DEGREES 16 MINUTES 33 SECONDS WEST, A DISTANCE OF 66.30 FEET, MORE OR LESS TO A 5/8-INCH REBAR WITH YELLOW PLASTIC CAP INSCRIBED "LS2609" FOUND; THENCE NORTH 51 DEGREES 18 MINUTES 18 SECONDS WEST, A DISTANCE OF 24.94 FEET, MORE OR LESS TO THE POINT OF BEGINNING, AND CONTAINING AN AREA OF 217,364 SQUARE FEET, OR 4.99 ACRES, MORE OR LESS.

BEARINGS IN THE DESCRIPTIONS ABOVE ARE BASED ON OREGON STATE PLANE COORDINATES, SOUTH ZONE, NAD-83, INTERNAIONAL FOOT.



MAP and TAX LOT	
MAP #: 17-03-15-400 TAX LOTS: 0800, 0900, 1000, 1100 ZONING: EXISTING: CAMPUS INDUSTRIAL PROPOSED: COMMUNITY COMMERCIAL (VERIFY) APPROXIMATE TOTAL SIZE: 4.99 AC.	MINIMUM DENSITY X UNITS PER ACRE MAXIMUM DENSITY X UNITS PER ACRE XX ACRES X.X = X UNITS
TRANSIT FACILITIES	
EXISTING AND PROPOSED TRANSIT FACILITIES EXISTING: TBD	
TABULATION OF BUILDING COVERAGE	
FOOTPRINT OF EXISTING BUILDINGS TOTAL	0 SF 42,667 SF 42,667 SF
PROPOSED LOT COVERAGE = 23% OF TOTAL SITE	
TABULATION OF IMPERVIOUS SURFACES	
PROPOSED NEW: BUILDINGS PARKING AND CIRCULATION TOTAL NEW:	X SF -X SF X SF
TOTAL IMPERVIOUS SURFACE: IMPERVIOUS SURFACE TREATED:	X SF X SF
TOTAL SITE TOTAL IMPERVIOUS TOTAL PERVIOUS/VEGETATED	X SF -X SF X SF
AUTOMOBILE PARKING	
PARKING SPACES REQUIRED SPACES PROVIDED = 130	TBD
BIKE PARKING	
BIKE PARKING REQUIRED SPACES PROVIDED = XX	TBD

EXHIBIT G

LAND USE REVIEW SET
THIS DRAWING IS
NOT FOR CONSTRUCTION
07-19-2023

THE SATRE GROUP
375 West 4th, Suite 201, Eugene, OR 97401
Phone: 541.686.4540 Fax: 541.686.4577
www.satregroup.com

PRELIMINARY SITE PLAN

SCALE 1" = 30' - 0"

Revisions		
#	Date	Describe

Project Number	2312
Drawn By	JCA
Checked	RS
Date	

L1

PEACEHEALTH REHABILITATION HOSPITAL
TRAFFIC IMPACT ANALYSIS
TRANSPORTATION PLANNING RULE ANALYSIS

SPRINGFIELD, OR

October 20, 2023

160 Madison Street, Suite A
Eugene, Oregon 97402
541.513.3376

SANDOW
ENGINEERING

Traffic Impact Analysis Transportation Planning Rule Analysis Peace Health Rehabilitation Hospital



RENEWAL 06/30/24

Springfield, Oregon

October 20, 2023

Kelly Sandow PE

SANDOW

ENGINEERING

160 Madison Street, Suite A

Eugene Oregon 97402

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project # 6035

EXECUTIVE SUMMARY

This report provides the Transportation Planning Rule Analysis and Traffic Impact Analysis prepared for a proposed zone change and development proposal for the PeaceHealth Rehabilitation Facility in Springfield, Oregon. The site is located at Tax Lot 1000 and a portion of Tax Lots 800, 900, and 1100 of Assessor's Map 17-03-15-40. The site will utilize approximately 5.0 acres.

The existing zoning is Campus Industrial- CI. The proposal is to rezone the property to Medical Services-MS. The proposed zone change triggers an evaluation as per Oregon Administrative Rule, OAR 660-012-0060, the Transportation Planning Rule.

The development proposal is a 50-bed inpatient rehabilitation hospital at approximately 67,000 sf. The development proposal triggers a Traffic Impact Analysis as per SDC 4.2.105(B)(2).

The following report recommendations are based on the information and analysis documented in this report.

FINDINGS

- The addition of development trips does not trigger any intersections to not meet the LOS standards.
- The intersection of Gateway St at Beltline Rd currently operates at LOS F during the PM peak hour. The City has identified improvements at this intersection, which are reasonably assumed to be constructed within the 20-year planning horizon. With these improvements, the intersection will meet the mobility standards through the year 2035.
- The addition of development traffic does not substantially increase queuing conditions.
- There is no off-site mitigation needed for this development.
- TPR findings are demonstrated to be met.
- The minimum number of parking spaces, as per the ITE Parking Generation Manual, is 151 for the 67,000-sf facility.

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- APPENDIX F: QUEUING OUTPUTS
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1.0 BACKGROUND

1.1 SITE INFORMATION

The site is located on the northeast corner of Maple Island Road and Game Farm Road at Tax Lot 1000 and a portion of Tax Lots 800, 900, and 1100 of Assessor's Map 17-03-15-40. The parcel site is approximately 5 acres. Figure 1 illustrates the site location. The proposal includes the rezoning of the site from Campus Industrial-CI to Medical Services-MS. The site will be developed with a 50-bed inpatient rehabilitation hospital at approximately 67,000 square feet. Appendix A contains the site plan.

Primary access to the site will be via a new access location to Game Farm Road, located between the intersections with Maple Island Road and Deadmond Ferry Road. This access will be right-in right-out only. This access provides a direct route to the facility's main entrance and patient drop-off/pick-up area. A second entrance to the site will be provided from Maple Island Road by constructing an access as the east leg of the roundabout.

1.2 ANALYSIS SCOPE

The development proposal of a 50-bed rehabilitation facility triggers an evaluation of impacts during the AM and PM peak hours at the time of development completion, estimated at year 2025, and for 5 years beyond the completion (year 2030).

The proposed zone change triggers an evaluation consistent with the Transportation Planning Rule criteria (TPR), Oregon Administrative Rule (OAR) 660-012-0060. This evaluation considers the impacts from the "reasonable worst-case" development potential at the end of the City's Transportation System Plan planning horizon, year 2035.

The traffic study is performed in accordance with the City of Springfield standards and criteria. Appendix B contains the Scope of Work. An intersection analysis was performed for the adjacent intersections at the following locations:

- Maple Island Road at Site Access
- Maple Island Road at Game Farm Road
- Game Farm Road at Deadmond Ferry Road
- Game Farm Road at Beltline Road/Martin Luther King Jr Parkway
- Gateway Street at Game Farm Road
- Gateway Street at Beltline Road

The operational analysis was performed at the study area intersections for the weekday AM peak period (7:00-9:00 AM) and PM peak period (4:00-6:00 PM). The operational analysis is performed for the following conditions:

- Existing conditions, year 2023

- Year of completion, year 2025, with and without the proposed development
- Five-year planning horizon, the year 2030, with and without the proposed development
- End of TSP Planning Horizon, year 2035, with and without proposed development

2.0 EXISTING ROADWAY CONDITIONS

2.1 STREET NETWORK

Streets included within the study are Maple Island Road, Game Farm Road, Deadmond Ferry Road, Beltline Road, Gateway Street, and Marin Luther King Jr Parkway. The roadway characteristics within the study area are included in Table 1. Figure 2 illustrates the street classifications and the study area intersection geometry and access control.

TABLE 1: ROADWAY CHARACTERISTICS WITHIN STUDY AREA

Characteristic	Maple Island Rd	Game Farm Rd	Deadmond Ferry	Beltline	MLK Jr Pkwy	Gateway Street
Jurisdiction	City of Springfield	City	City	City	City	City
Functional Classification	Local	Major Collector	Major Collector	Major/ Minor Arterial	Minor Arterial	Minor Arterial
Lanes per Direction	1	1	1	2-3	2	1-2
Center Left Turn lane	None	Yes	Yes	None	None	None
Restrictions in the Median	Splitter Island	Splitter Island	None	Planter Median	Planter Median	Planter and Concrete Median
Bikes Lanes Present	Yes	Yes	Yes	Yes	Yes- Off Street Path Provided	Yes
Sidewalks Present	Yes	Yes	Yes	Yes	Yes	Yes
Transit Route	None	None	None	Yes	Yes	Yes
On-Street Parking	None	None	None	None	None	None

*As per TSP

2.2 STUDY INTERSECTIONS

Intersections included in the study are:

- Maple Island Rd at Site Access
- Maple Island Rd at Game Farm Rd
- Game Farm Rd at Deadmond Ferry Road
- Game Farm Rd at Beltline Rd/Martin Luther King Jr Parkway\
- Gateway Street at Game Farm Road
- Gateway Street at Beltline Road

Figure 2 provides the study area geometry and access control.

Maple Island Rd at Access: This is currently a 3-legged intersection with a single-lane roundabout as control. The project includes constructing the east leg of the intersection as an access for the site. There are sidewalks and marked pedestrian crossings on all legs.

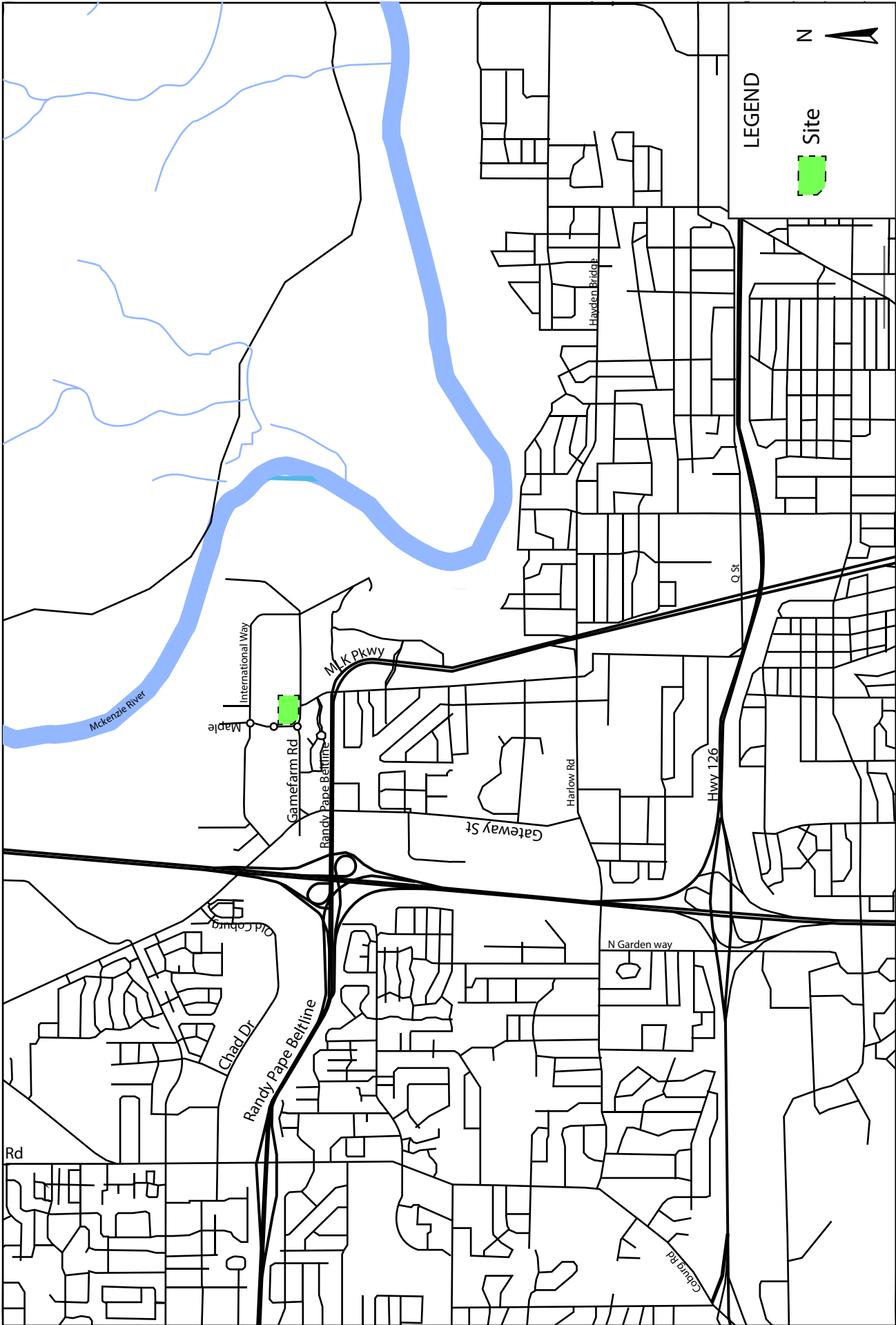
Maple Island Rd at Game Farm Rd: This is a 3-legged intersection with a single-lane roundabout as control. There are sidewalks and marked pedestrian crossings on all legs.

Game Farm Rd at Deadmond Ferry Rd: This is a stop-controlled 3-legged intersection with the northbound approach as stop controlled. There is a marked crosswalk across the northbound leg. There is no ADA ramp located on the northeast corner of the intersection.

Game Farm Rd at Beltline Rd/MLK Jr Parkway: This is a 3-legged signalized intersection. There are sidewalks and bike lanes/shared paths along all approaches. There are ADA ramps and marked crosswalks along the north and west legs. There is no crosswalk across the east leg.

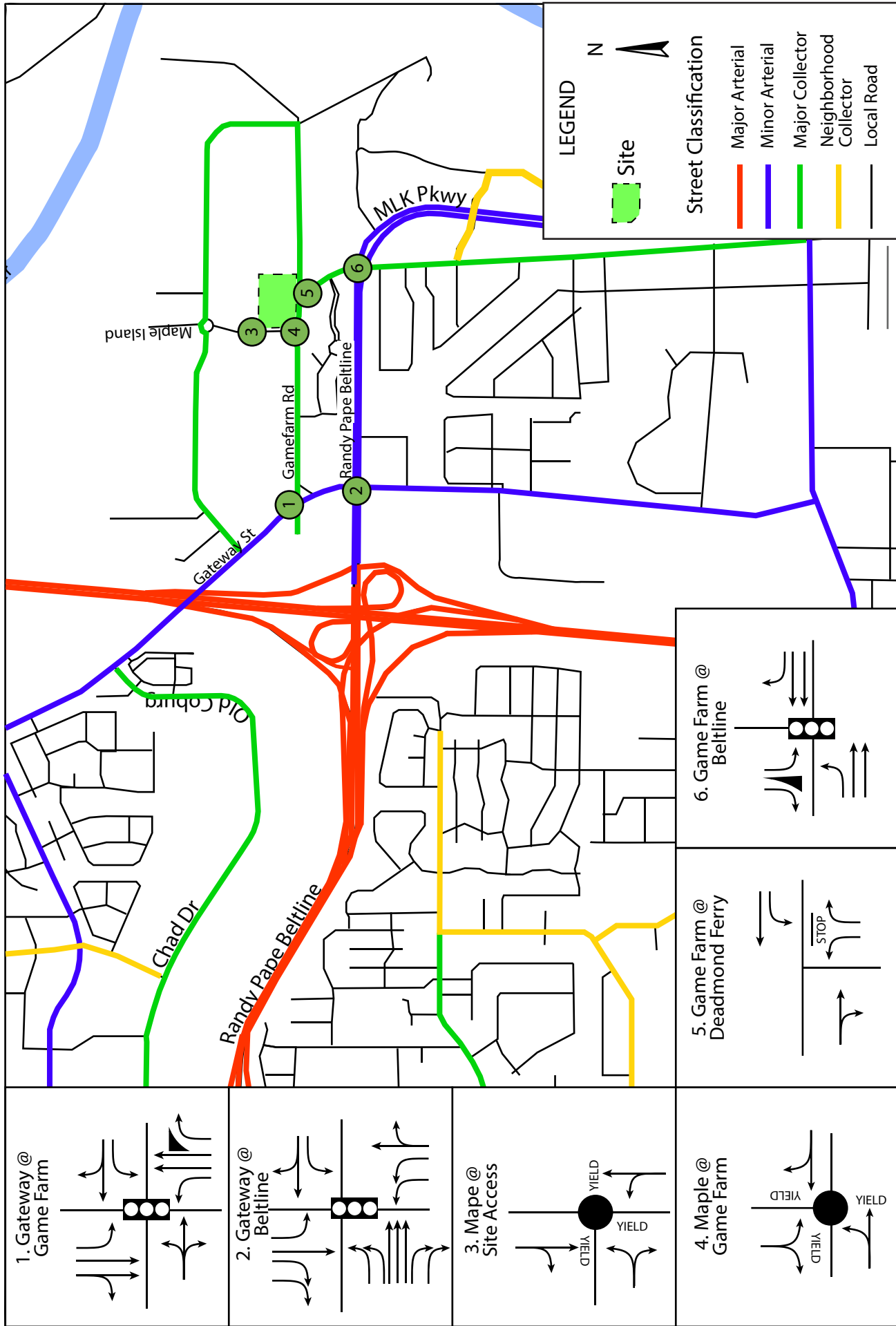
Gateway St at Game Farm Rd: This is a 4-legged signalized intersection. There are sidewalks and striped crosswalks on all 4 approaches. There are striped bike lanes on the Gateway St and Game Farm Rd approaches.

Gateway St at Beltline: This is a 4-legged signalized intersection. There are sidewalks, striped pedestrian crossings, and bike lanes on the north, east, and south approaches.



Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

Figure 1: Site Location & Vicinity Map



Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

Figure 2: Lane Configuration and Street Classification

3.0 CRASH ANALYSIS

A crash evaluation was performed for the study area intersection. The analysis investigates crash data available for the most recent 5 years, 1/1/2017-12/31/2021, to determine the crash rate in crashes per million entering vehicles and the type of crashes that occurred. The crash analysis follows the Critical Crash Rate methodology outlined in ODOT’s Analysis Procedures Manual. The intersection crash rates are compared to the calculated Critical Crash Rates. If the crash rate exceeds the Critical Crash Rate, the intersection is further evaluated for possible mitigation measures. The crash data is provided in Appendix C. The crash rates are provided in Table 2. Table 3 summarizes the crash data.

TABLE 2: INTERSECTION CRASH RATE

Location	Intersection Type	Number of Crashes	AADT	MEV	Crash Rate	Critical Crash Rate	
Maple Island @ Access	Stop Control	0	1,390	2.54	0.00	0.64	Under
Maple Island @ Game Farm Rd	Stop Control	1	4,230	7.72	0.13	0.36	Under
Game Farm Rd @ Deadmond Ferry Rd	Stop Control	1	4,760	8.69	0.12	0.34	Under
Game Farm at Beltline	Signal	6	18,110	33.05	0.18	0.71	Under
Gateway St @ Game Farm	Signal	3	17,060	31.13	0.10	0.72	Under
Gateway St @ Beltline	Signal	62	42,970	78.42	0.79	0.64	Over

*(crashes/million entering vehicles)

Gateway Street at Beltline has a crash rate higher than the Critical Crash Rate for the study area. All other intersections have crash rates under the Critical Crash Rate.

TABLE 3: INTERSECTION CRASH PATTERNS

Location	Number of Crashes	Types of Crashes					Pedestrian/ Bike
		Head	Rear	Side	Turn	Other	
Maple Island @ Access	0	0	0	0	0	0	0
Maple Island @ Game Farm Rd	1	0	0	0	0	1	0
Game Farm Rd @ Deadmond Ferry Rd	1	0	1	0	0	0	0
Game Farm @ Beltline	6	0	1	0	3	2	0
Gateway St @ Game Farm Rd	3	0	1	0	1	1	0
Gateway St @ Beltline	62	0	22	0	24	15	1

*(crashes/million entering vehicles)

There was 1 reported crash involving a pedestrian, occurring at the Beltline/Gateway intersection. This crash occurred Monday, 4/24/2017, at 6 AM. The pedestrian was in the crosswalk on the east side leg of the intersection, traveling northbound. The vehicle was on Beltline traveling eastbound. The error/cause of the crash is noted as the pedestrian in the crosswalk during the “don’t walk” indication and not visible due to the time of day.

The intersection of Gateway at Beltline has a crash rate that is over the Critical Crash Rate. A majority of the crashes are classified as rear-end or turn crashes. Of the 22 rear-end collisions, 2 involved southbound vehicles, 8 involved westbound vehicles, 7 involved northbound vehicles, and 5 involved eastbound vehicles. The patterns are consistent with the higher volume/higher congested approaches. Of the 24 turning movement crashes, 12 involved northbound through and southbound left turns. A majority of these types of crashes had the error assigned to the left-turning vehicle. There is no apparent crash pattern with the remainder of the turning crashes.

4.0 DEVELOPMENT TRIP GENERATION AND DISTRIBUTION

The development proposal is a 67,000 square foot inpatient rehabilitation facility with 50 beds. The rehabilitation facility provides physical and neurological rehabilitation for adults. The facility will primarily serve inpatient care.

The ITE Trip Generation Manuals do not have a Land Use that is an exact match to the proposed use. The closest land uses are:

- **610-Hospital:** This land use is defined as “any institution where medical or surgical care and overnight accommodations are provided to non-ambulatory and ambulatory patients.”
- **630-Clinic:** This land use is defined as “a facility that provides limited diagnostic and outpatient care but is unable to provide prolonged in-house medical and surgical care”.
- **720-Medical- Dental Office Building:** This land use is defined as “a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care.”

The most closely matched land use is **610-Hospital**, as the other land uses are specific to outpatient care, and the proposed use will be primarily inpatient care.

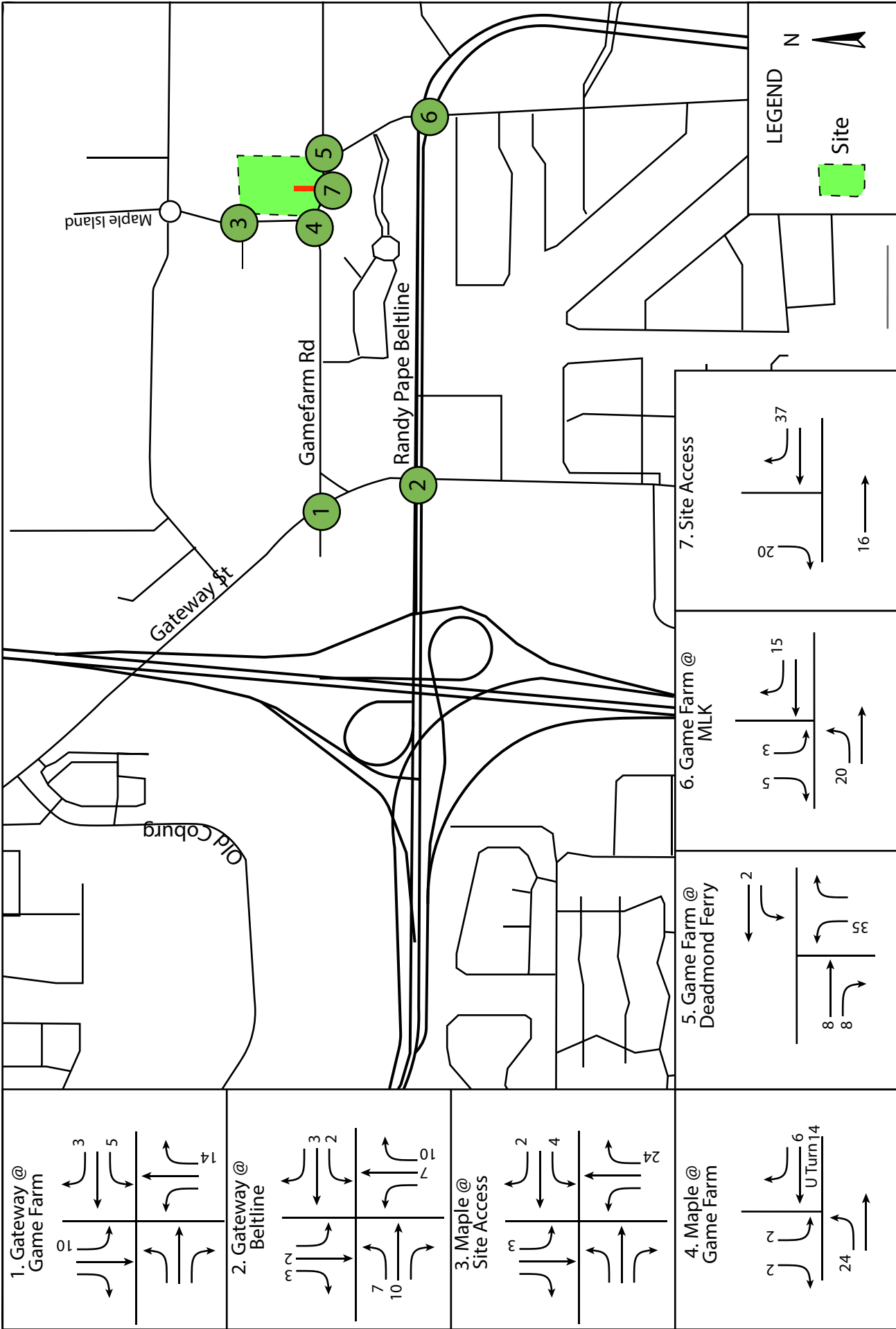
610-Hospital provides trip rates based on the number of beds, square feet, and employees. The independent variable of beds was chosen as the most appropriate independent variable as it’s the driving factor for the number of patients, employees, etc. Additionally, the trip rates for using beds as an independent variable provide the highest trip generation estimate, providing a more conservative analysis. The trip generation is illustrated in Table 4.

TABLE 4: TRIP GENERATION

Time Period	Size (Beds)	Rate	Trips	In	Out
610-Hospital					
Daily	50	22.32	1,116	(50%) 558	(50%) 558
AM Peak Hour	50	1.79	90	(72%) 64	(28%) 26
PM Peak Hour	50	1.69	85	(33%) 28	(67%) 57

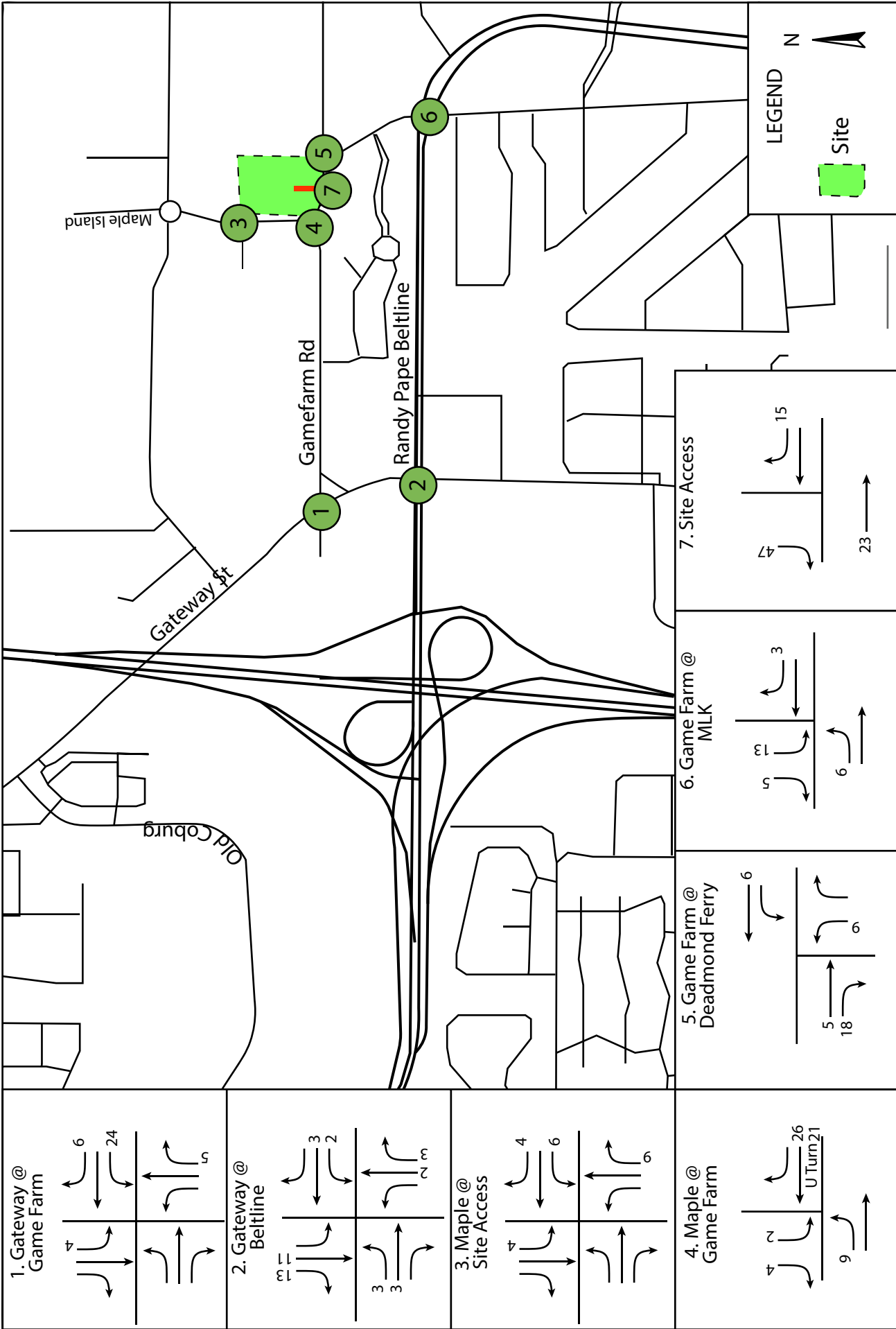
The site will generate more than 1000 ADT, meeting the requirement for a TIA as per SDC 4.2.105.

The trips are distributed on the system based on the existing travel patterns in the area and the reasonable origins and destinations. Figure 3 illustrates the trip distribution during the AM peak hour. Figure 4 illustrates the trip distribution during the AM peak hour.



Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

Figure 3: AM Development Trip Distribution



Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

Figure 4: PM Development Trip Distribution

5.0 BACKGROUND TRAFFIC VOLUMES

5.1 INTERSECTION COUNTS

Recent traffic counts were collected in March and May 2023 at the study intersections from 7:00-9:00 AM and 4:00-6:00 PM. The peak hours of the system are 7:30-8:30 AM and 4:30-5:30 PM.

The traffic volumes are included in Appendix D.

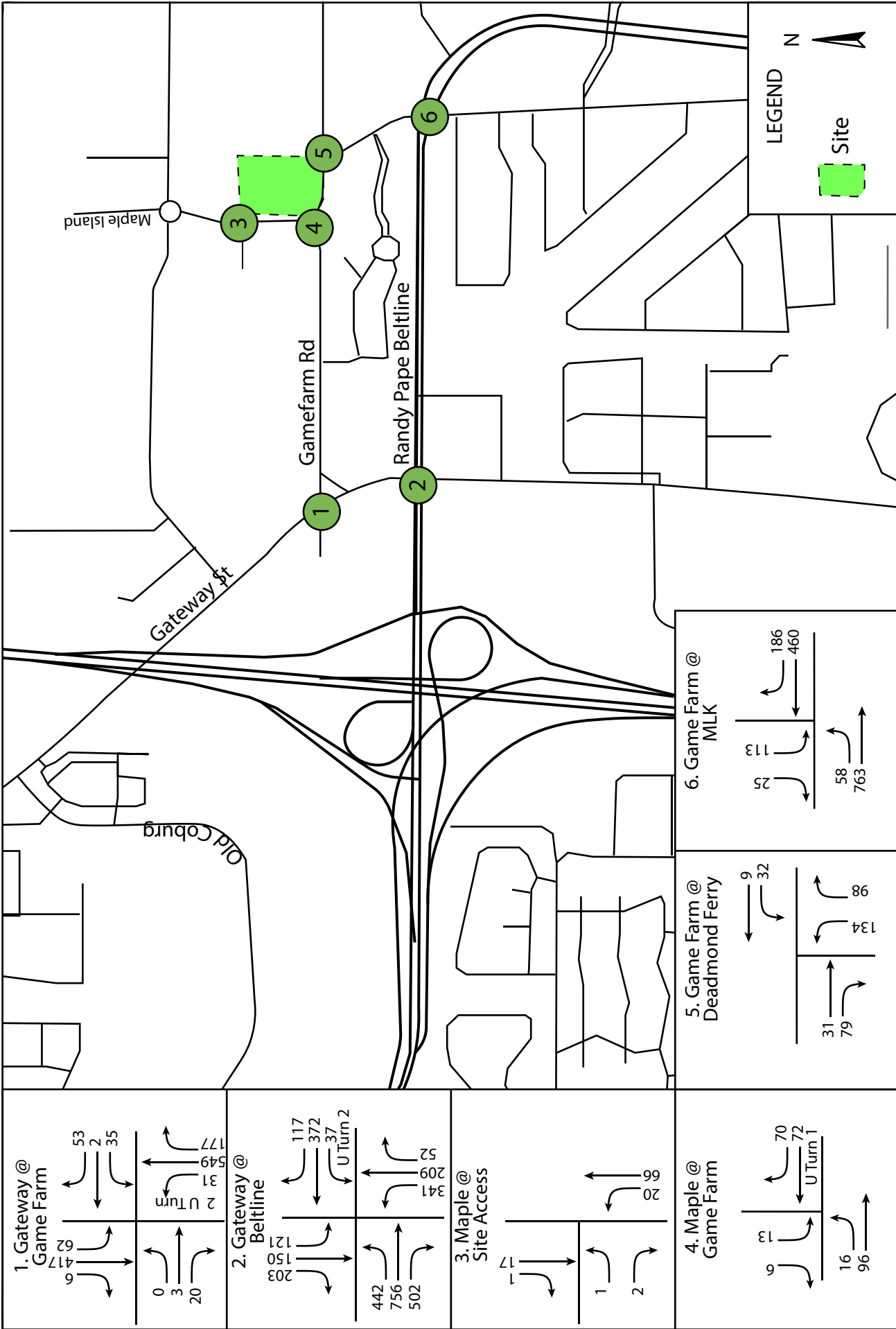
5.2 FUTURE YEAR BACKGROUND VOLUMES

The proposed site development is projected to be completed by the year 2025. Consistent with the traffic impact analysis criteria, the intersections were evaluated for the year of completion, the year 2025, and a 5-year planning horizon, the year 2030. An annual growth rate was applied to account for naturally occurring traffic increases between the count year and the future analysis year. The City standard growth rate of 2% per year was used for this study. The 2.0% per year rate was applied to the 2023 counts to estimate 2025 and 2029 volumes.

5.3 FINAL TRAFFIC VOLUMES

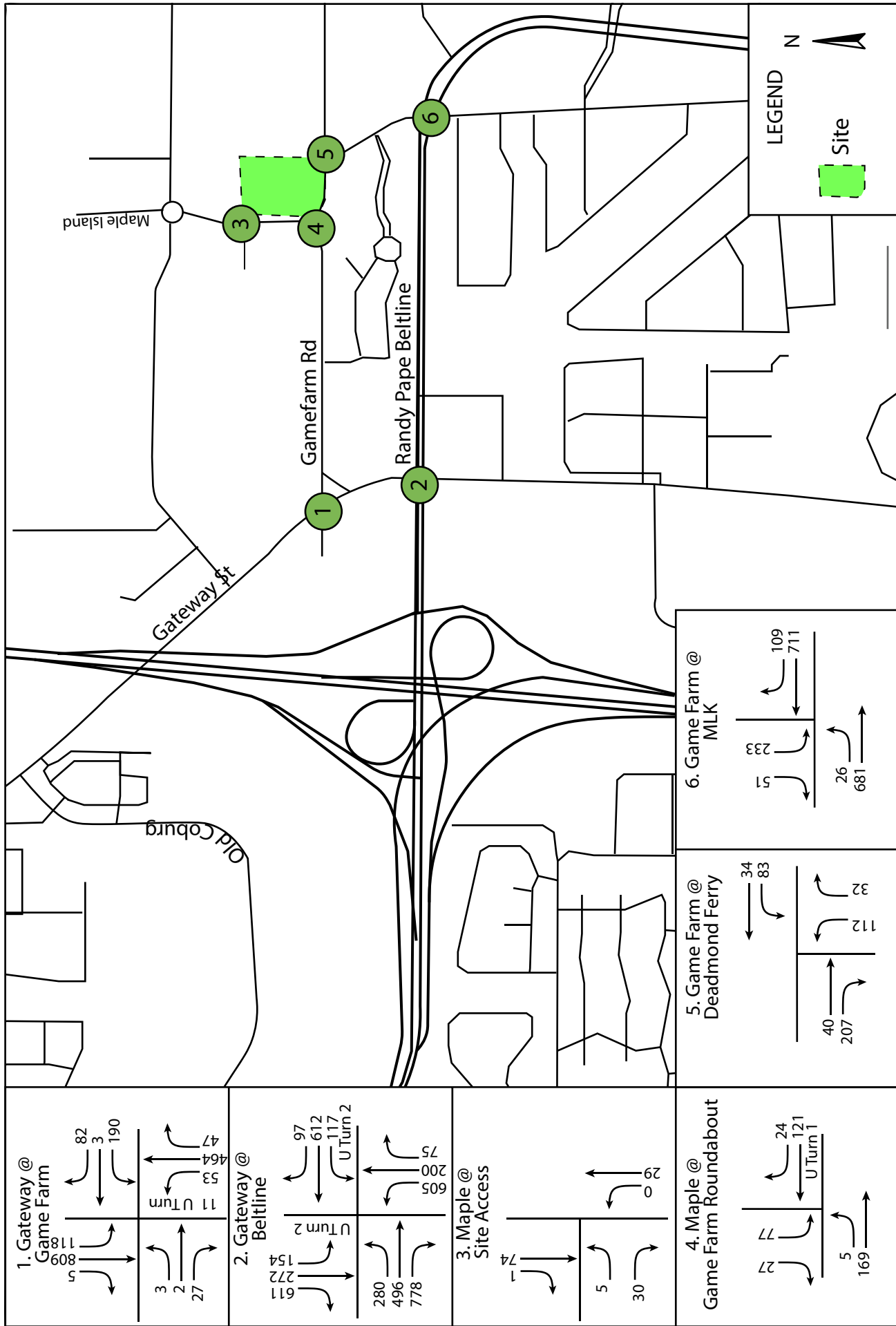
The existing traffic volumes were adjusted according to the methodology described above. Appendix D provides the traffic volume calculations. The development trips are added to the background traffic to volume to represent the build conditions. The traffic volumes are provided in the following figures:

- Figure 5- Year 2023 AM Peak Hour
- Figure 6- Year 2023 PM Peak Hour
- Figure 7- Year 2025 AM Peak Hour Background
- Figure 8- Year 2025 PM Peak Hour Background
- Figure 9- Year 2030 AM Peak Hour Background
- Figure 10- Year 2030 PM Peak Hour Background
- Figure 11- Year 2025 AM Peak Hour with Development
- Figure 12- Year 2025 PM Peak Hour with Development
- Figure 13- Year 2030 AM Peak Hour with Development
- Figure 14- Year 2030 PM Peak Hour with Development



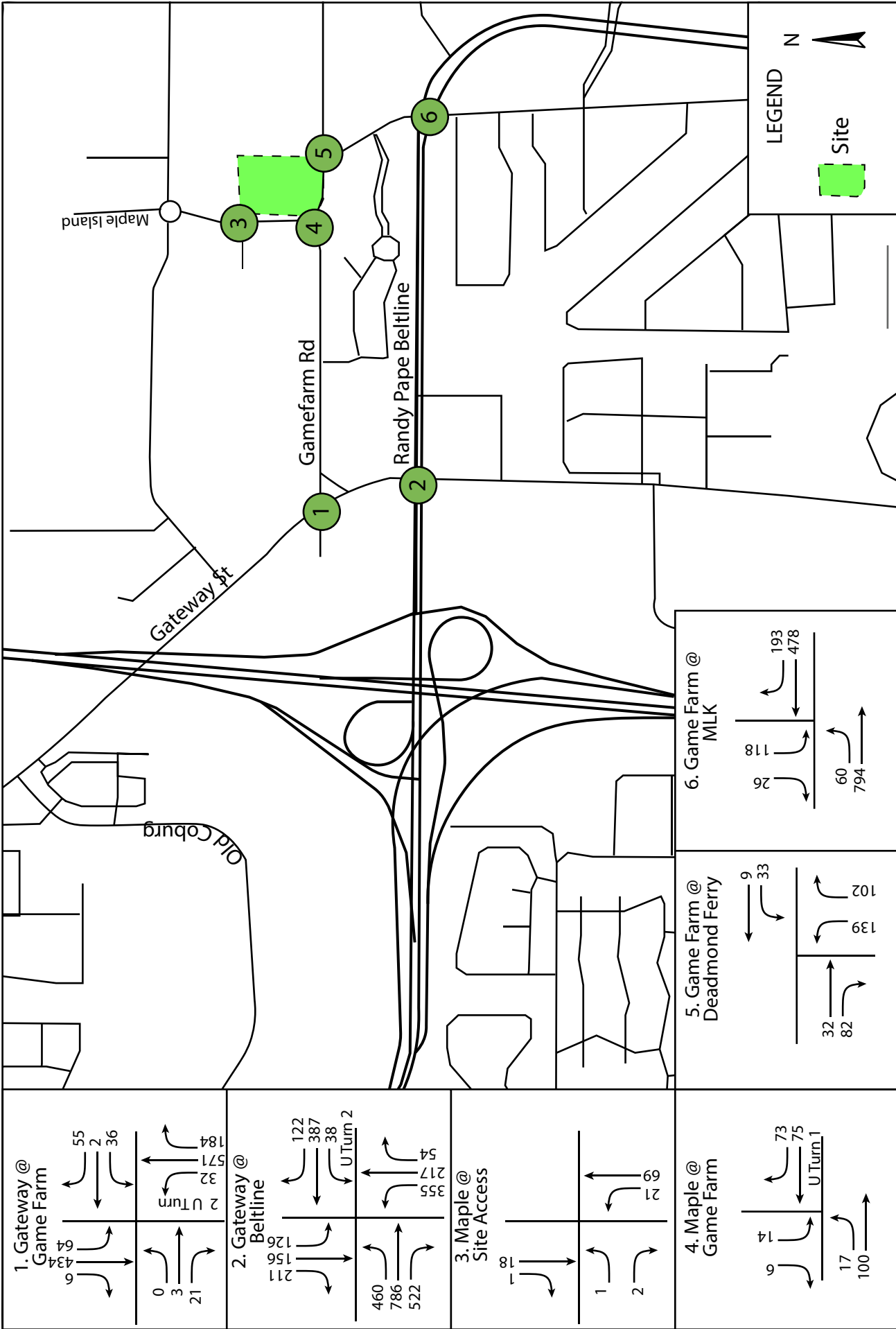
Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

Figure 5: Year 2023 AM Background Peak Hour Traffic Volumes



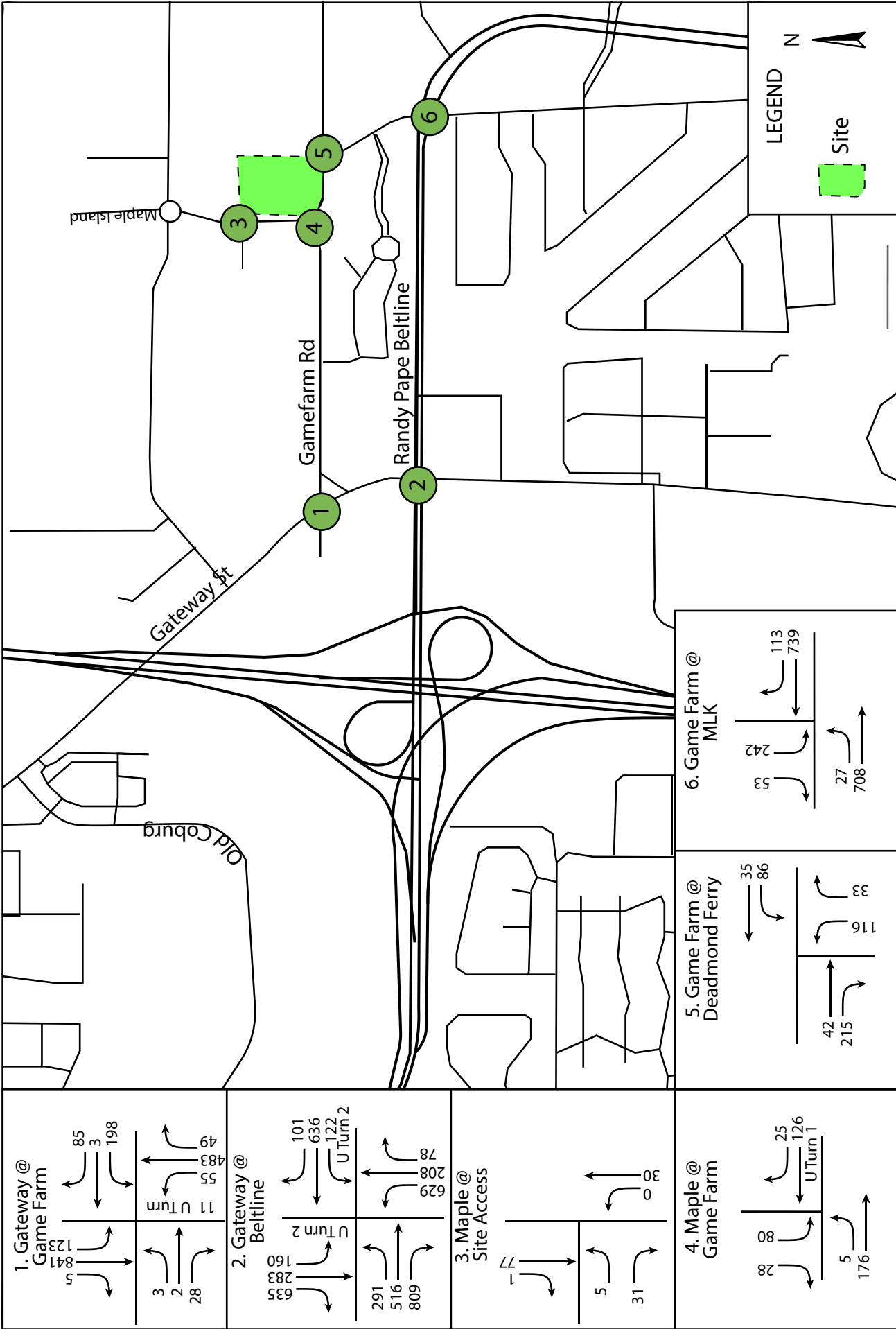
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Figure 6: Year 2023 PM Background Peak Hour Traffic Volumes



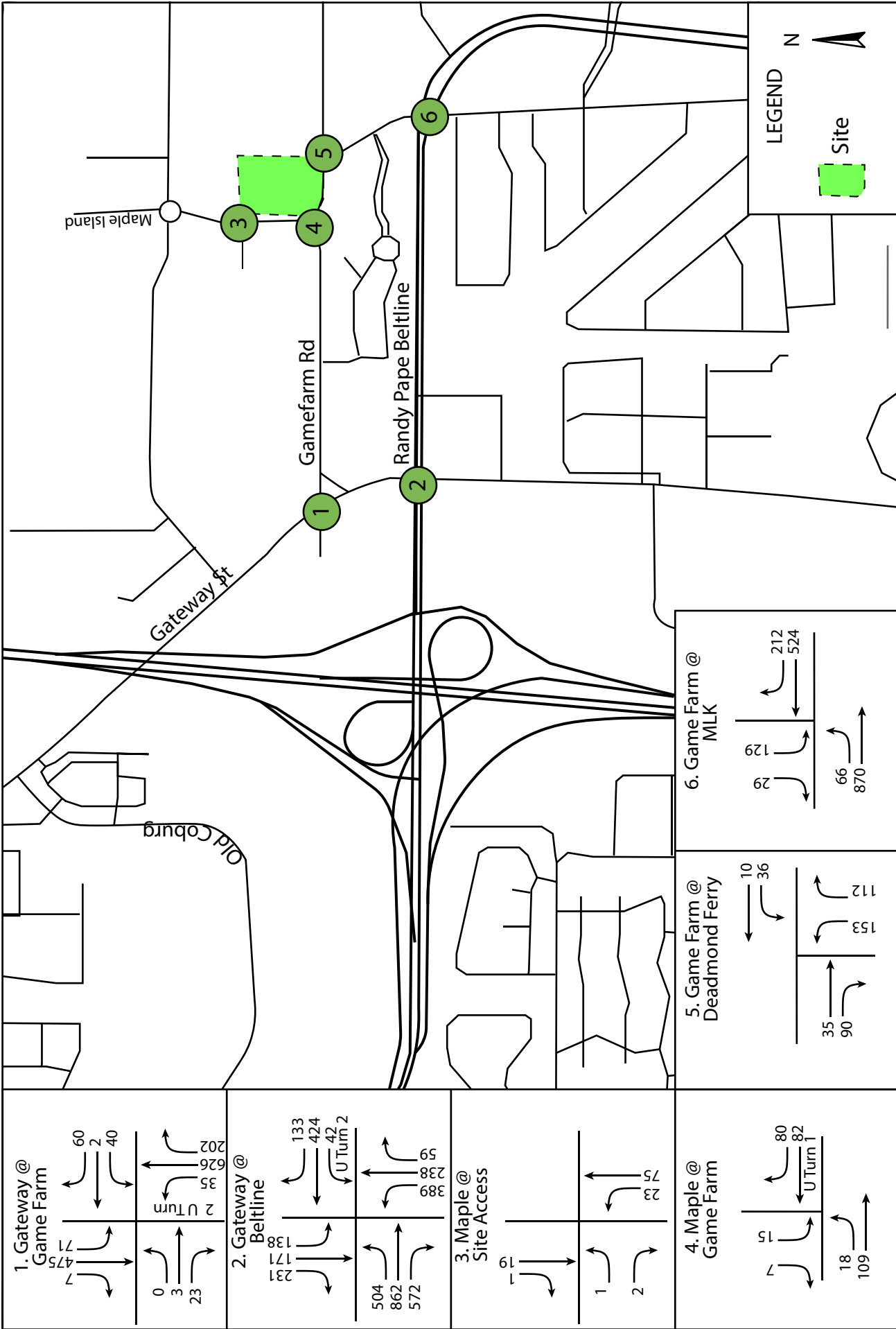
Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

Figure 7: Year 2025 AM Background Peak Hour Traffic Volumes



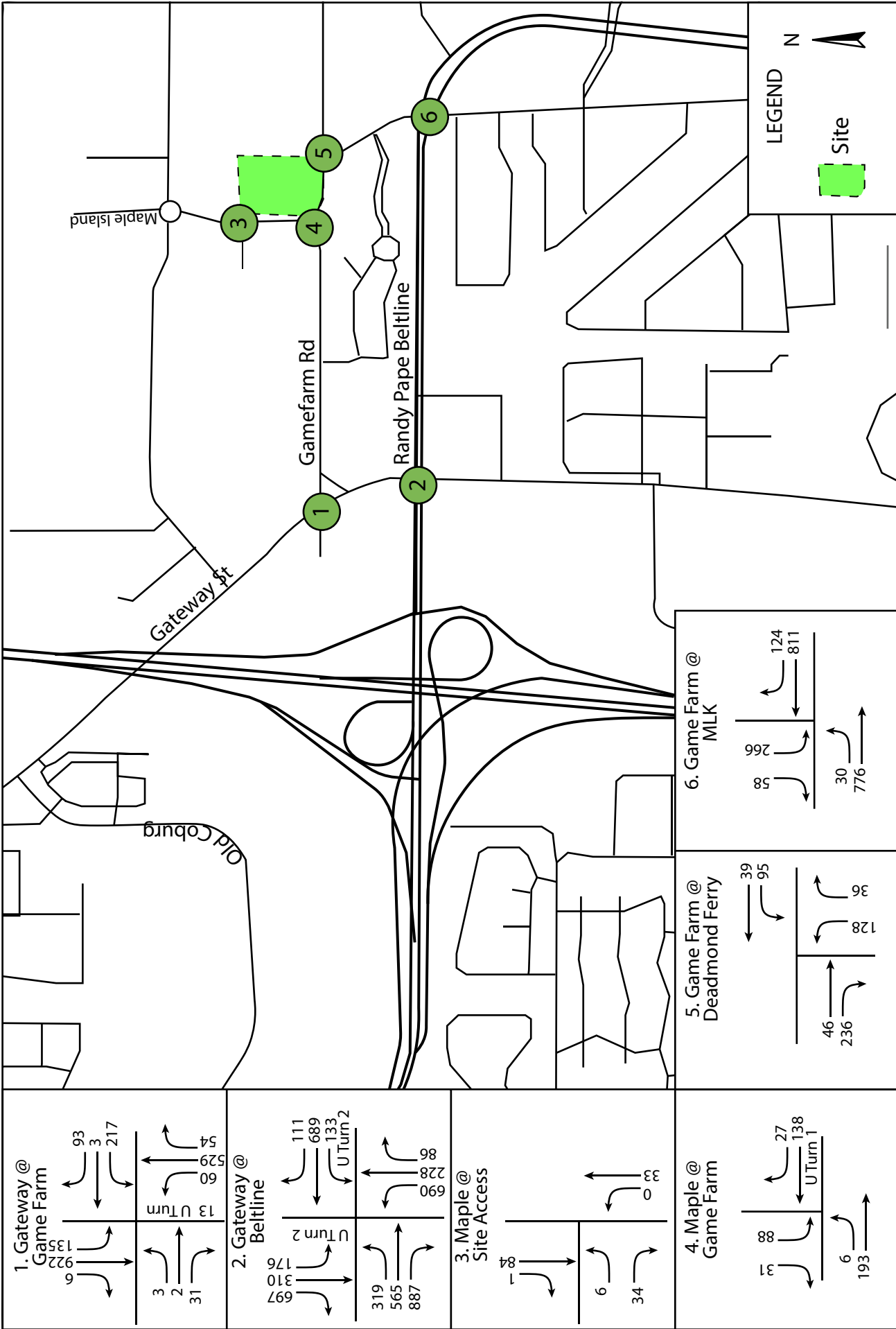
Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

Figure 8: Year 2025 PM Background Peak Hour Traffic Volumes



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Figure 9: Year 2030 AM Background Peak Hour Traffic Volumes



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Figure 10: Year 2030 PM Background Peak Hour Traffic Volumes

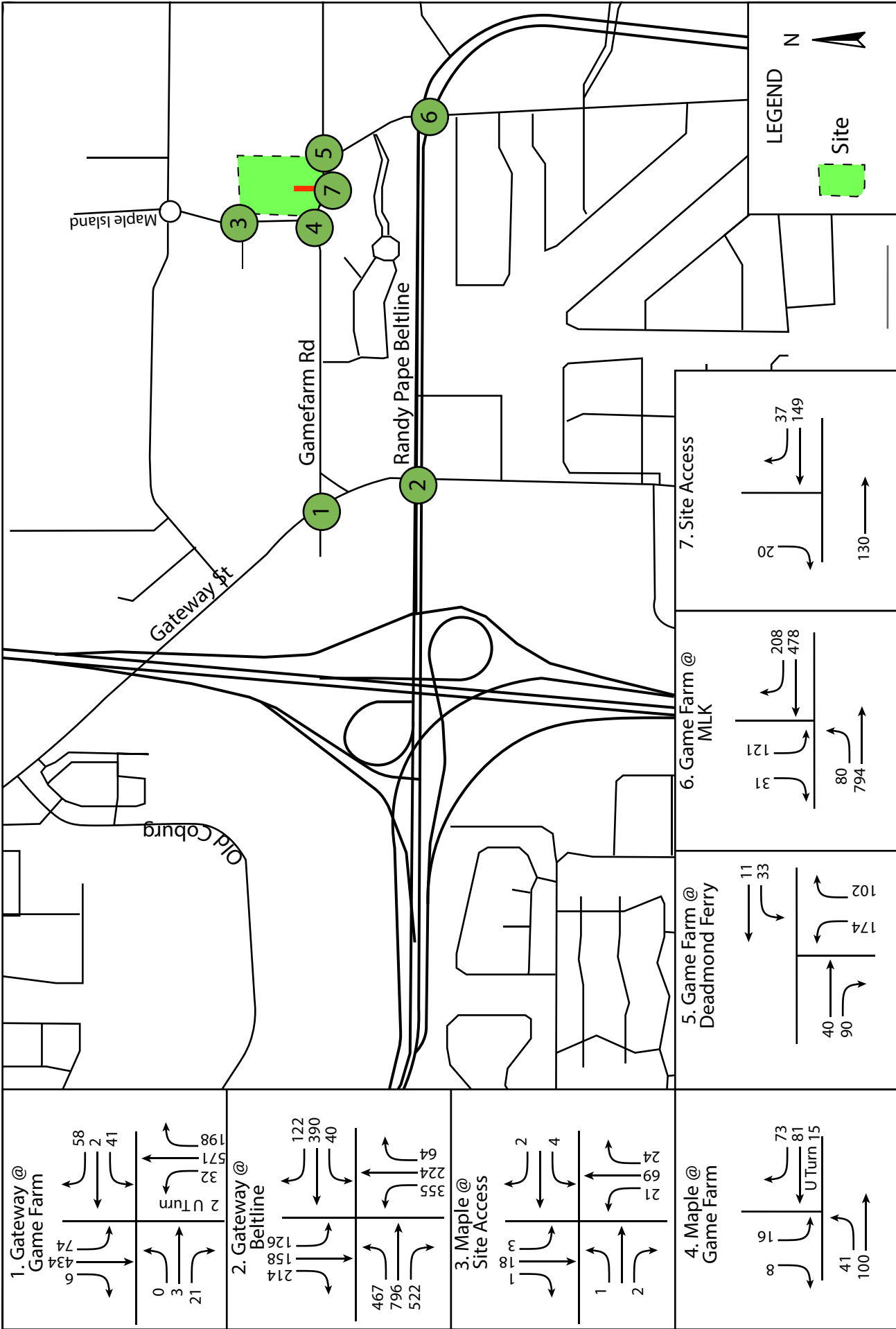


Figure 11: Year 2025 AM Traffic Volumes with Development

Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

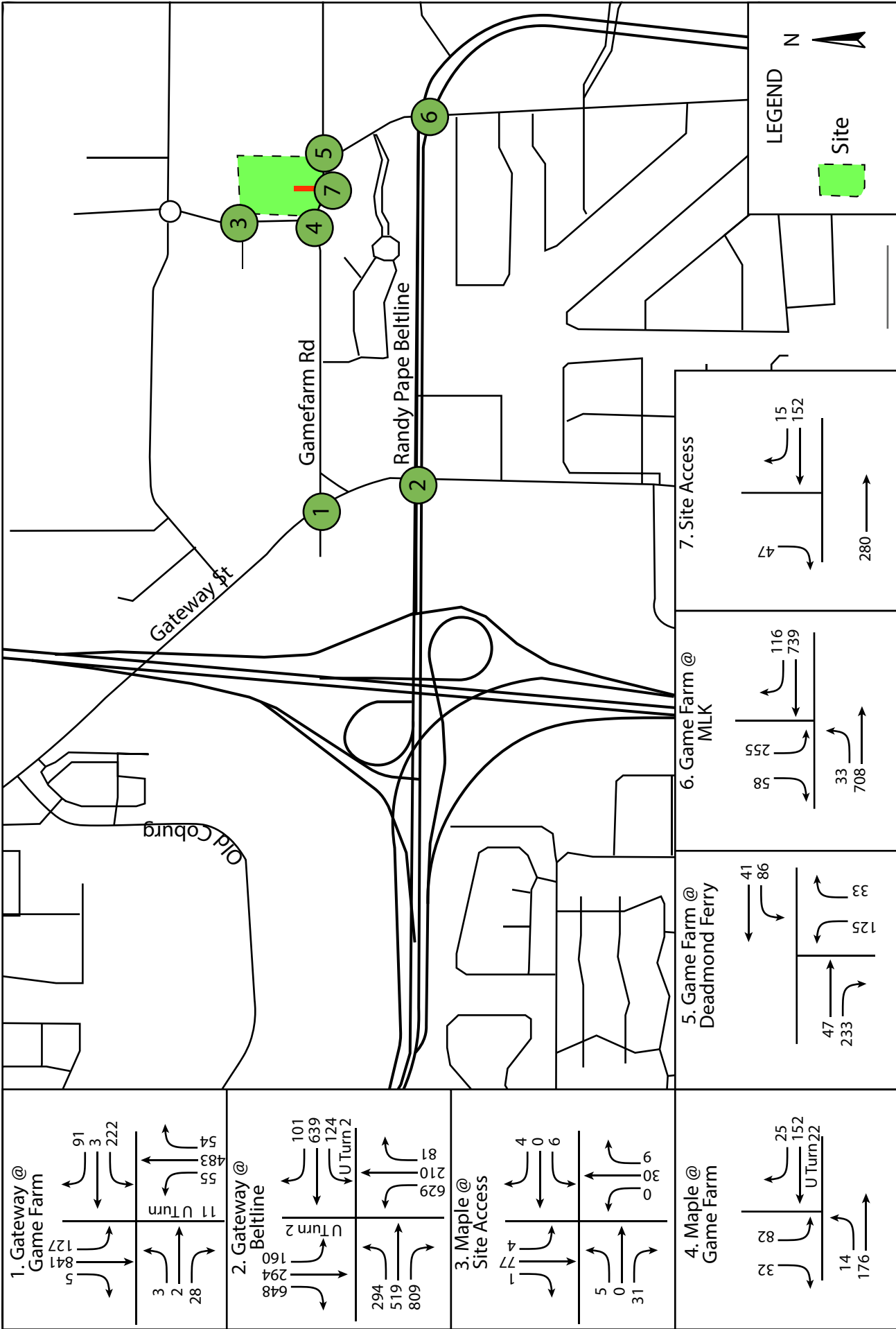


Figure 12: Year 2025 PM Traffic Volumes with Development

Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

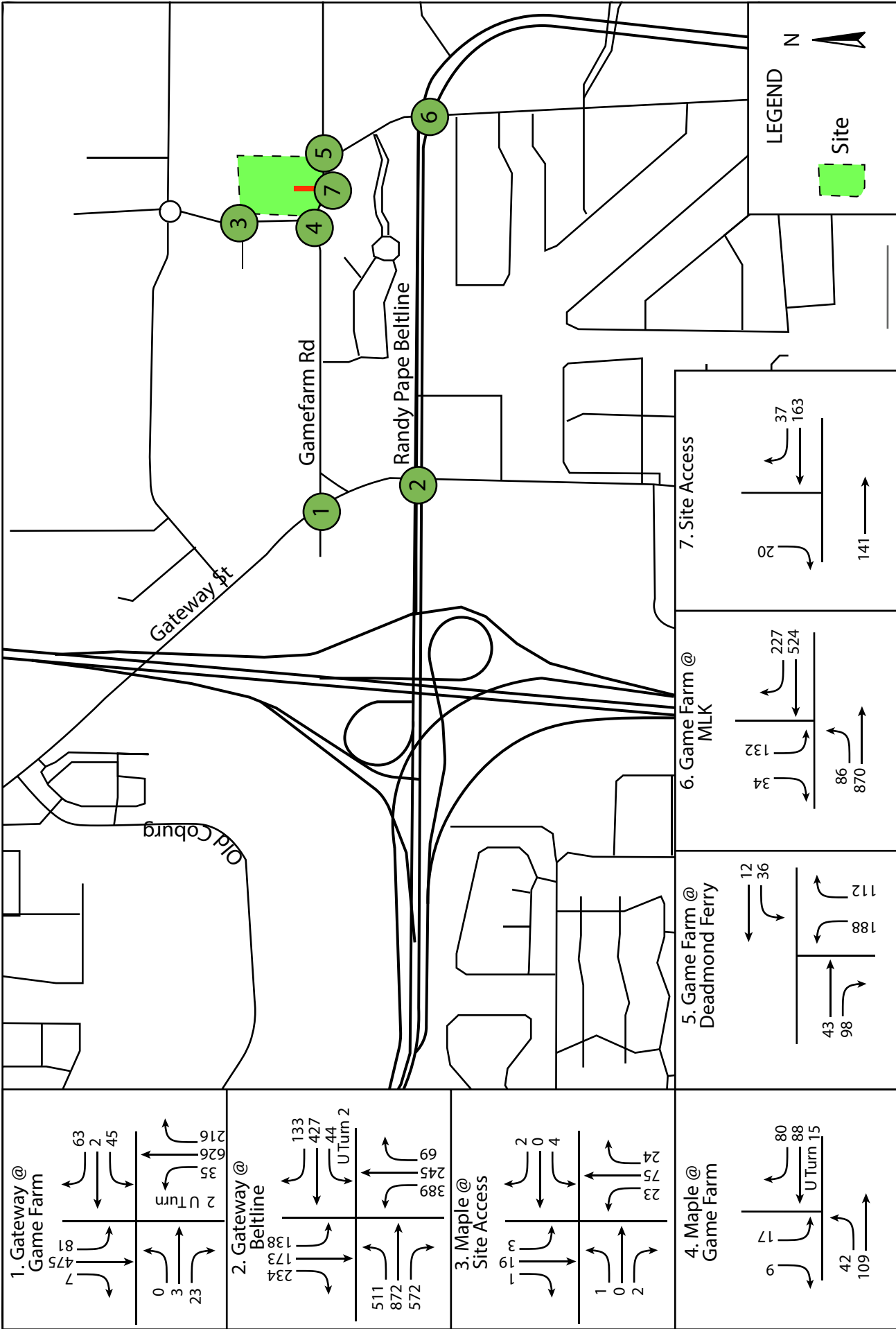


Figure 13: Year 2030 AM Traffic Volumes with Development

Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

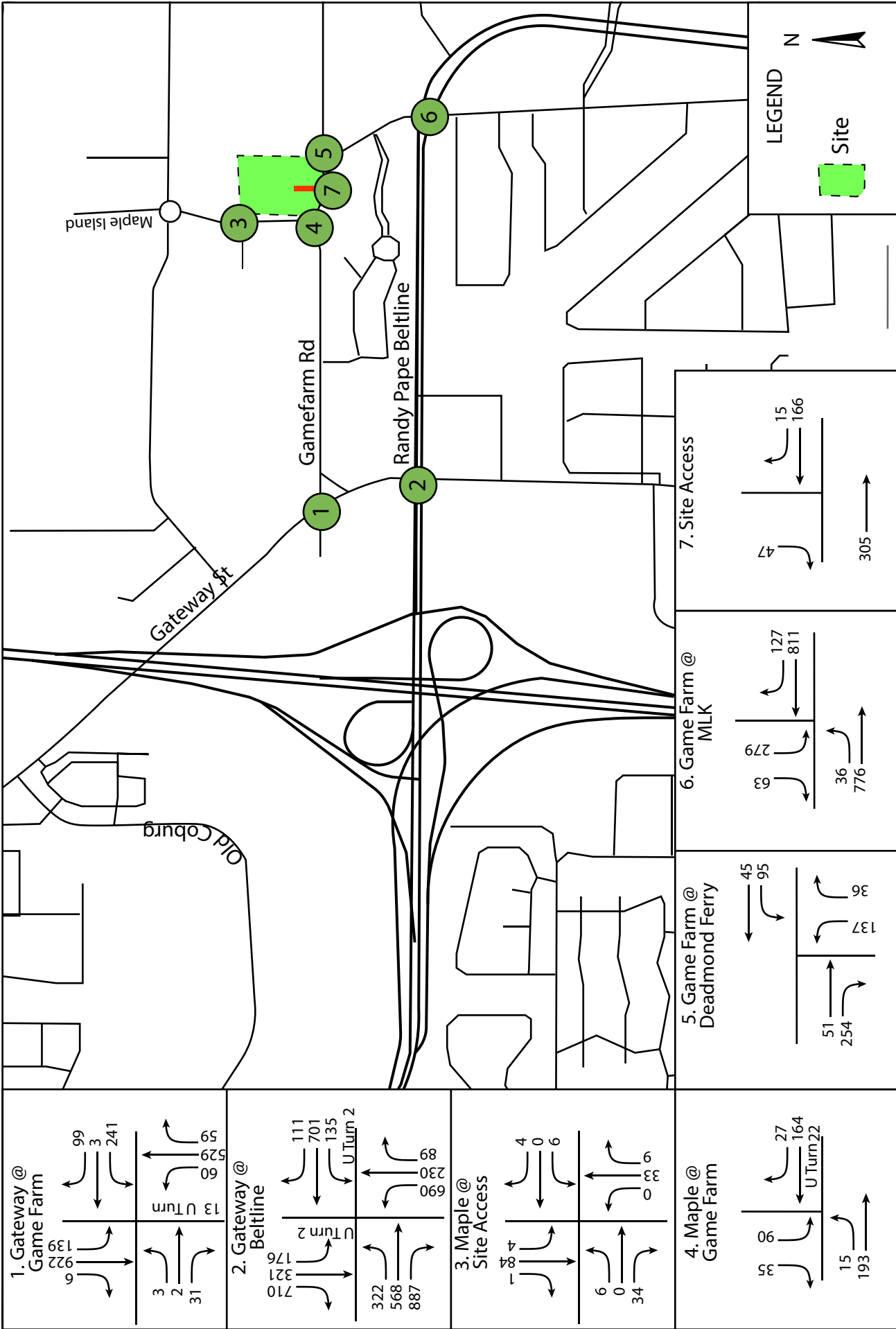


Figure 14: Year 2030 PM Traffic Volumes with Development

Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

6.0 INTERSECTION ANALYSIS

6.1 PERFORMANCE MEASURES

The City of Springfield uses a Level of Service (LOS) standard for intersections under the City’s jurisdiction. The LOS standard is based on the Highway Capacity Manual (HCM) defined level of service (LOS). LOS is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or along a roadway segment. It was developed to quantify the quality of service of transportation facilities.

LOS is based on average delay, defined as the average total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line. Average delay is measured in seconds per vehicle per hour and is then translated into a grade or “level of service” for each intersection. LOS ranges from A to F, with A indicating the most desirable condition and F indicating the most unsatisfactory condition.

Springfield has a standard of LOS D.

The LOS criteria, as defined by the Highway Capacity Manual (HCM 6) for signalized intersections, are provided in Table 5.

TABLE 5: HCM LEVEL OF SERVICE FOR INTERSECTIONS

	Stopped Delay Per Vehicle (Seconds per Vehicle)	
	Unsignalized Intersections	Signalized Intersections
A	≤ 10.0	≤ 10
B	> 10.0 and ≤ 15.0	> 10 and ≤ 20
C	> 15.0 and ≤ 25.0	> 20 and ≤ 35
D	> 25.0 and ≤ 35.0	> 35 and ≤ 55
E	> 35.0 and ≤ 50.0	> 55 and ≤ 80
F	> 50.0	> 80

6.2 INTERSECTION ANALYSIS RESULTS

A performance analysis was conducted for the studied intersections for the Years 2023, 2025, and 2030 conditions during the AM and PM peak hours. The intersection evaluation was performed using Synchro 10, utilizing the HCM 6 methodology, for the signalized and stop-controlled intersections. ODOT Roundabout Methodology was used to calculate the LOS for the roundabouts. The results are shown in Table 6 for the AM and Table 7 for the PM. The SYNCHRO and roundabout calculation outputs are provided in Appendix E.

TABLE 6: INTERSECTION PERFORMANCE: WEEKDAY AM PEAK HOUR

Intersection	Mobility Standard LOS	2023 Background	2025 Background	2025 Build	2030 Background	2030 Build
Maple Island Rd @ Site Access	D	A	A	A	A	A
Maple Island Rd @ Game Farm Rd	D	A	A	A	A	A
Game Farm Rd @ Deadmond Ferry Road	D	B	B	B	B	B
Game Farm Rd @ Beltline Rd/Martin Luther King Jr Parkway	D	A	A	A	A	A
Gateway Street @ Game Farm Rd	D	A	A	A	A	A
Gateway St @ Beltline Rd	D	D	D	D	D	D
Game Farm @ Site Access	D	N/A	N/A	A	N/A	A

As illustrated in Table 6, all intersections and site access connections will meet the applicable mobility standards with the addition of development trips for the AM Peak Hour.

TABLE 7: INTERSECTION PERFORMANCE: WEEKDAY PM PEAK HOUR

Intersection	Mobility Standard LOS	2023 Background	2025 Background	2025 Build	2030 Background	2030 Build
Maple Island Rd @ Site Access	D	A	A	A	A	A
Maple Island Rd @ Game Farm Rd	D	A	A	A	A	A
Game Farm Rd @ Deadmond Ferry Road	D	B	B	C	C	C
Game Farm Rd @ Beltline Rd/Martin Luther King Jr Parkway	D	B	B	B	B	B
Gateway Street @ Game Farm Rd	D	B	B	B	C	C
Gateway St @ Beltline Rd	D	F	F	F	F	F
Game Farm @ Site Access	D	N/A	N/A	A	N/A	A

The intersections of Gateway at Beltline operated at LOS for current conditions and continues to operate at LOS F through the year 2030. All other intersections meet the LOS standard.

7.0 QUEUE ANALYSIS

A queuing analysis was conducted for the studied intersections. The signalized and stop-controlled queuing analysis was performed using SimTraffic, a microsimulation software tool that uses the HCM-defined criteria to estimate the queuing of vehicles within the study area. ODOT’s Roundabout Methodology was used to calculate the roundabout queues. The average and 95th percentile queuing results are illustrated in Table 8 for the AM peak hour and Table 9 for the PM peak hour. All results are rounded to 25 feet to represent the total number of vehicles in the queue, as one vehicle typically occupies 25 feet of space. The SimTraffic and roundabout calculation outputs are provided in Appendix F.

TABLE 8: INTERSECTION QUEUING: WEEKDAY AM PEAK HOUR

Intersection			Available Storage (Feet)	2023 Background (Feet)		2025 Background (Feet)		2025 Build (Feet)		2030 Background (Feet)		2030 Build (Feet)	
				95 th	Average	95 th	Average	95 th	Average	95 th	Average	95 th	Average
Game Farm @ Beltline	EB	L	425	75	50	75	25	75	50	75	50	75	50
	EB	T	1000+	100	50	100	50	100	50	100	50	100	50
	WB	T	390	100	75	125	75	125	75	125	75	125	75
	WB	R	410	50	50	50	50	50	50	75	50	75	50
	SB	L	150	100	50	100	50	100	50	100	50	100	75
	SB	R	530	0	0	0	0	0	0	25	0	0	0
Game Farm @ Deadmond Ferry	EB	TR	290	0	0	25	0	25	0	25	0	25	0
	WB	L	160	25	25	25	25	25	25	25	25	50	25
	NB	L	140	50	50	50	50	75	50	75	50	75	50
	NB	R	540	50	25	50	25	50	25	50	25	50	50
Beltline @ Gateway	EB	L	525	225	175	250	175	250	175	250	175	300	200
	EB	T	700	175	100	175	100	175	125	200	125	200	125
	EB	R	670	100	50	125	50	125	50	150	75	125	50
	WB	UL	440	75	25	75	50	75	50	75	50	75	50
	WB	T	440	200	125	200	125	200	150	225	150	200	150
	WB	TR	400	75	50	75	50	100	50	100	50	100	50
	NB	L	275	175	75	225	150	225	150	250	175	275	175
	NB	TR	450	225	125	225	150	225	150	275	150	275	150
	SB	L	375	125	75	150	75	125	75	150	100	175	100
	SB	T	470	150	75	175	100	150	100	175	100	175	100
Gateway @ Game Farm	EB	LTR	250	25	25	25	25	25	25	25	25	25	25
	WB	L	750	50	25	50	25	50	25	50	25	50	25
	WB	TR	810	50	25	50	25	50	25	50	25	50	25
	NB	UL	120	50	25	50	25	25	25	50	25	50	25
	NB	T	475	75	50	100	50	75	50	100	50	100	50
	NB	TR	475	100	50	125	50	100	50	125	50	125	75
	SB	L	240	25	25	25	25	25	25	50	25	50	25
	SB	T	450	75	25	75	25	50	25	50	25	50	25
	SB	TR	610	75	25	75	25	75	25	75	25	75	25
Maple @ North Site Access	EB	LTR	180	0	-	0	-	0	-	0	-	0	-
	WB	LTR	100	0	-	0	-	0	-	0	-	0	-
	NB	LTR	330	25	-	25	-	25	-	25	-	25	-
	SB	LTR	280	0	-	0	-	25	-	0	-	25	-
Maple @ Game Farm	EB	LTR	1000+	25	-	25	-	25	-	25	-	25	-
	WB	UTR	300	25	-	25	-	25	-	25	-	25	-
	NB	LTR	25	0	-	0	-	0	-	0	-	0	-
	SB	LTR	300	0	-	0	-	25	-	25	-	25	-

-not provided in roundabout calculation

As demonstrated in Table 8, the addition of development traffic does not substantially increase the queuing conditions at the studied intersections.

TABLE 9: INTERSECTION QUEUING: WEEKDAY PM PEAK HOUR

Intersection			Available Storage (Feet)	2023 Background (Feet)		2025 Background (Feet)		2025 Build (Feet)		2030 Background (Feet)		2030 Build (Feet)	
				95 th	Average	95 th	Average	95 th	Average	95 th	Average	95 th	Average
Game Farm @ Beltline	EB	L	425	75	25	50	25	75	25	75	25	75	50
	EB	T	1000+	125	75	125	75	125	75	150	75	150	100
	WB	T	390	175	125	175	125	200	125	225	150	200	125
	WB	R	410	50	25	50	25	50	25	50	25	50	25
	SB	L	150	150	100	150	100	175	100	175	100	175	100
	SB	R	530	50	25	50	25	125	25	100	25	75	25
Game Farm @ Deadmond Ferry	EB	TR	290	25	25	25	25	25	25	25	25	25	25
	WB	L	160	50	25	50	25	50	25	50	25	50	25
	NB	L	140	75	50	50	25	75	50	75	50	75	50
	NB	R	540	50	25	50	25	50	25	50	25	50	25
Beltline @ Gateway	EB	L	525	250	150	225	150	200	125	250	150	275	125
	EB	T	700	200	125	225	150	200	150	250	125	225	125
	EB	R	670	250	150	275	175	275	200	425	225	425	225
	WB	UL	440	150	100	150	100	150	100	175	100	200	100
	WB	T	440	300	225	300	225	300	225	350	225	325	225
	WB	TR	400	175	75	175	100	200	100	200	100	200	100
	NB	L	275	275	175	350	250	375	250	1050	1000	1025	100
	NB	TR	450	225	125	225	150	250	150	1125	975	1100	975
	SB	UL	375	175	100	200	125	200	125	225	125	225	125
	SB	T	470	250	150	275	175	275	175	325	175	300	175
SB	R	210	200	125	200	125	250	175	275	125	225	125	
Gateway @ Game Farm	EB	LTR	250	25	25	25	25	25	25	25	25	25	25
	WB	L	750	125	75	125	75	50	25	175	100	175	100
	WB	TR	810	50	25	50	25	50	25	175	50	150	50
	NB	UL	120	50	25	50	25	50	25	100	50	100	50
	NB	T	475	100	50	125	50	100	50	150	75	150	75
	NB	TR	475	125	75	125	75	125	50	175	75	150	100
	SB	L	240	50	25	50	25	50	25	100	25	100	50
	SB	T	450	150	75	150	75	100	50	300	100	225	100
SB	TR	610	175	100	175	100	125	75	300	150	275	125	
Maple @ North Site Access	EB	LTR	180	25	-	25	-	25	-	25	-	25	-
	WB	LTR	100	0	-	0	-	0	-	0	-	0	-
	NB	LTR	330	25	-	25	-	25	-	25	-	25	-
	SB	LTR	280	25	-	25	-	25	-	25	-	25	-
Maple @ Game Farm	EB	UTR	1000+	25	-	25	-	25	-	25	-	25	-
	WB	LTR	300	25	-	25	-	25	-	25	-	25	-
	NB	LTR	25	0	-	0	-	0	-	0	-	0	-
	SB	LTR	300	25	-	25	-	25	-	25	-	25	-

-not provided in roundabout calculation

As demonstrated in Table 9, the addition of development traffic does not substantially increase the queuing conditions at the studied intersections. The northbound approach on Gateway at Beltline

currently experiences long queue lengths during the PM peak hour. The addition of development trips does not substantially impact the queuing conditions for the northbound approach.

8.0 TRANSPORTATION PLANNING RULE ANALYSIS

To be consistent with TPR findings, the traffic generated by the proposed zoning needs to be found to not have a significant effect on the adjacent transportation system. This is achieved by first determining if the proposed zoning will have a higher impact on the surrounding transportation system than the existing zoning. This is done by evaluating a reasonable “worst-case” development scenario for the existing and the proposed land use. If the proposed zoning has a higher trip generation, then an evaluation of the impacts to the transportation system is required.

The impacts from the proposed zoning are to be evaluated at the end of the City’s Transportation System Plan planning horizon- year 2035.

8.1 EXISTING ZONING DEVELOPMENT PROPOSAL

Existing Zoning Trip Generation

The existing zoning is Campus Industrial-CI. Uses allowed in the CI zoning are:

- Warehouse and wholesale sales
- Corporate Office/Headquarters
- Business Park

Maximum building height is 45 feet.

Taking into consideration the typical building footprint layout of adjacent properties with C-I zoning, it is estimated that a reasonable maximum building footprint is approximately 25% percent of the total site. The remaining 75% is landscaping parking, drive aisles, and loading areas.

- Building footprint 25%= 54,450 sf
- 2 Stories = 108,900 sf total

The PM peak hour trip generation is estimated by comparing the uses allowed within the zoning. The associated ITE Trip Generation Land Uses with the higher PM peak hour rates are:

- **140 Manufacturing:** The primary activity is manufacturing raw materials into finished products. Buildings typically contain offices, manufacturing areas, and storage areas.
- **156 High-Cube Parcel Hub Warehouse:** buildings primarily devoted to the storage of materials. Land use codes 150 Warehousing, 154 High-Cube Transload and Short-Term Storage, 155 High-Cube Fulfillment Center Warehouse, and 157 High-Cube Storage Warehouse were all evaluated. 156 High-Cube Parcel Hub Warehouse has the highest PM peak hour rates.

- **714 Corporate Headquarters Building:** single-tenant office buildings that house the corporate or headquarters of a company.
- **750 Office Park:** planned unit development that contains general office buildings and support services arranged in a park or campus-like setting.
- **760 Research and Development Center:** facility devoted to research and development. Buildings contain offices and light fabrication areas
- **770 Business Park:** group of flex-type or incubator buildings. The space contains a mix of office, manufacturing, retail, and wholesale stores.

Table 10 provides the PM Peak Hour trip for each development scenario allowed in the existing zoning.

TABLE 10: PM PEAK HOUR TRIP GENERATION COMPARISON-EXISTING ZONING

ITE Code	Rate	Trips
140 Manufacturing	$T=0.87(X)-17.5$	77
156 High-Cube Parcel Hub Warehouse	0.64	70
714 Corporate Headquarters Building	$\ln(T)=0.94\ln(x)+0.58$	147
750 Office Park	$T=1.26(X)+20.98$	158
760 Research and Development Center	$T=0.84(x)+25.08$	117
770 Business Park	$\ln(T)=0.88\ln(x)+0.93$	157

As demonstrated in Table 10, the highest PM peak hour generator is 750 Office Park at 158 PM peak hour trips.

8.2 PROPOSED ZONING DEVELOPMENT POTENTIAL

Potential Zoning

The proposed zoning is Medical Services-MS. The higher trip-generating uses allowed within the MS zoning are:

- Medical clinic
- Medical office building
- Hospital

For office and medical uses, the building footprint is estimated considering the parking requirements, minimum landscaping at 10%, and building heights. The office and clinic use would likely be 2 stories. The building would have a total square footage of approximately 72,000 sf.

The trip generation for each development scenario is illustrated in Table 11.

TABLE 11: PM PEAK HOUR TRIP GENERATION-PROPOSED NC ZONING

Development Potential	ITE Code	Rate	Trips
72,000 sf medical office building	720 Medical Office Building	$T=4.07(X)-3.17$	290
72,000 sf clinic	630 Clinic	$T=3.53(X)+2.98$	257
72,000 sf hospital	610-Hospital	$\ln(T)=0.64\ln(x)+2.27$	122

The reasonable worst-case development potential under the proposed zoning will generate 290 PM peak hour trips.

The entering and exiting splits are illustrated in Table 12 below. As demonstrated, the increase in trips from the zone change will increase the total trips by 132.

TABLE 12: TRIP INCREASE WITH ZONE CHANGE

	Total	In	Out
Existing Zoning	158	22	136
Proposed Zoning	290	87	203
Increase	132	65	67

8.3 TRAFFIC VOLUMES

The development trips from the worst-case development potential are distributed on the street network based on the existing travel patterns with modifications for reasonable ongoing destinations. Figure 15 illustrates the development trips.

The traffic evaluation is to be prepared for the end of the City’s Transportation System Plan’s Planning Horizon, year 2035. The annual growth rate, described in Section 5.3, is calculated at 2.0% per year. This growth rate is applied to the year 2023 traffic volumes to estimate the year 2035 background traffic volumes.

The trips from the worst-case development potential (shown in Tables 11 and 12) are added to the year 2035 background volumes to represent conditions with the worst-case development of the proposed zone change. Figure 16 provides the year 2035 background traffic volumes. Figure 17 provides the year 2035 traffic volumes with the maximum potential of the proposed zoning.

8.4 IN-PROGRESS IMPROVEMENTS

The City of Springfield has identified improvements to the Beltline/Gateway intersection area. The improvements are reasonably anticipated to be completed within the 20-year planning horizon. Therefore, the improvements are assumed to be completed in the year 2035 background and build conditions. The improvements include:

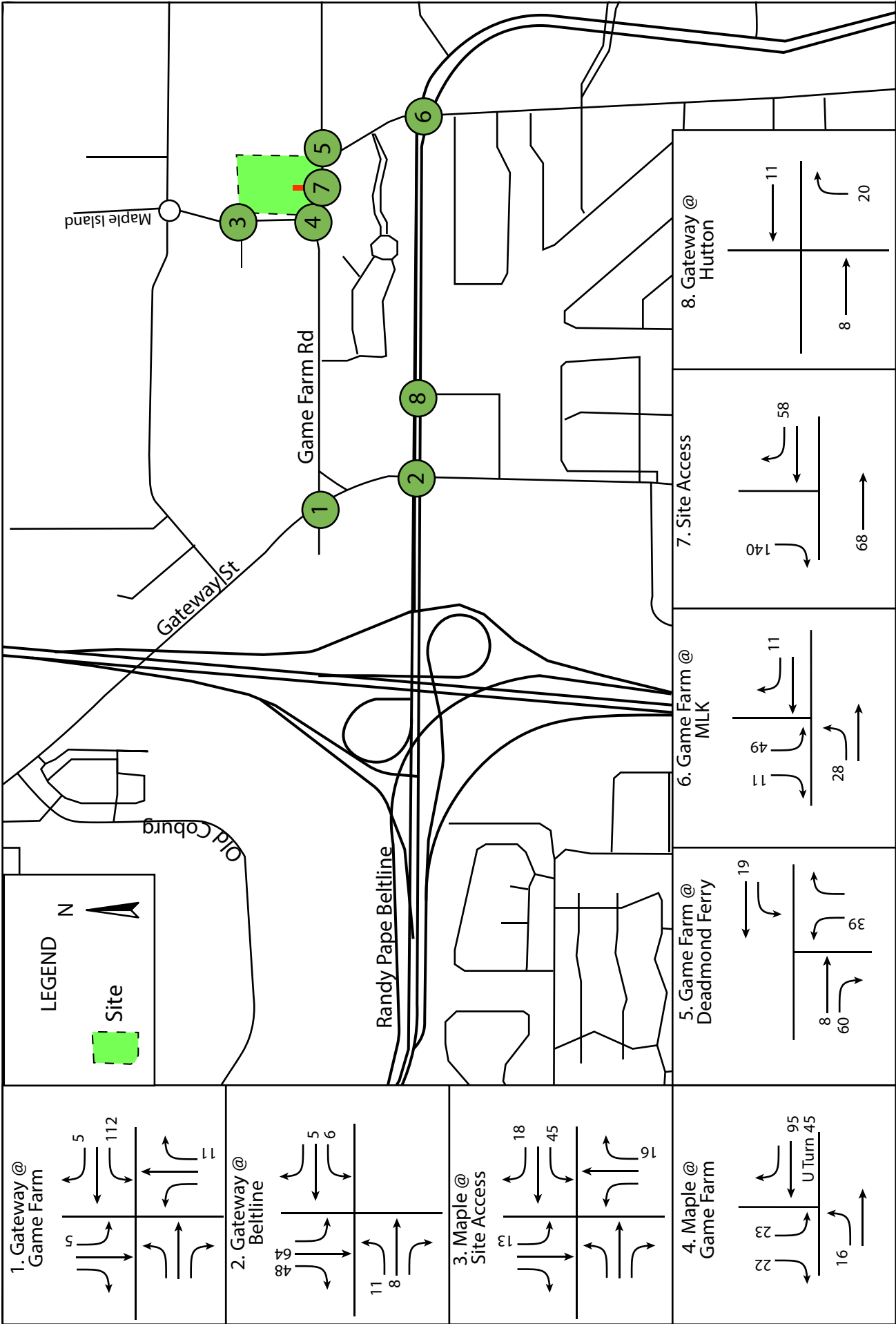
- Converting Gateway into a couplet between the Crossroads Center Access to Beltline Road.
- Divert northbound movements to the couplet, removing all northbound movements at the Gateway and Beltline intersection.
- Signalize Beltline at Hutton St intersection.

8.5 INTERSECTION ANALYSIS

The intersection evaluation was performed using Synchro 10 utilizing the HCM 6 methodology for the signalized and stop-controlled intersections. The roundabout LOS is calculated using the ODOT Roundabout Methodology. The results are shown in Table 13. The SYNCHRO and roundabout calculation outputs are provided in Appendix G.

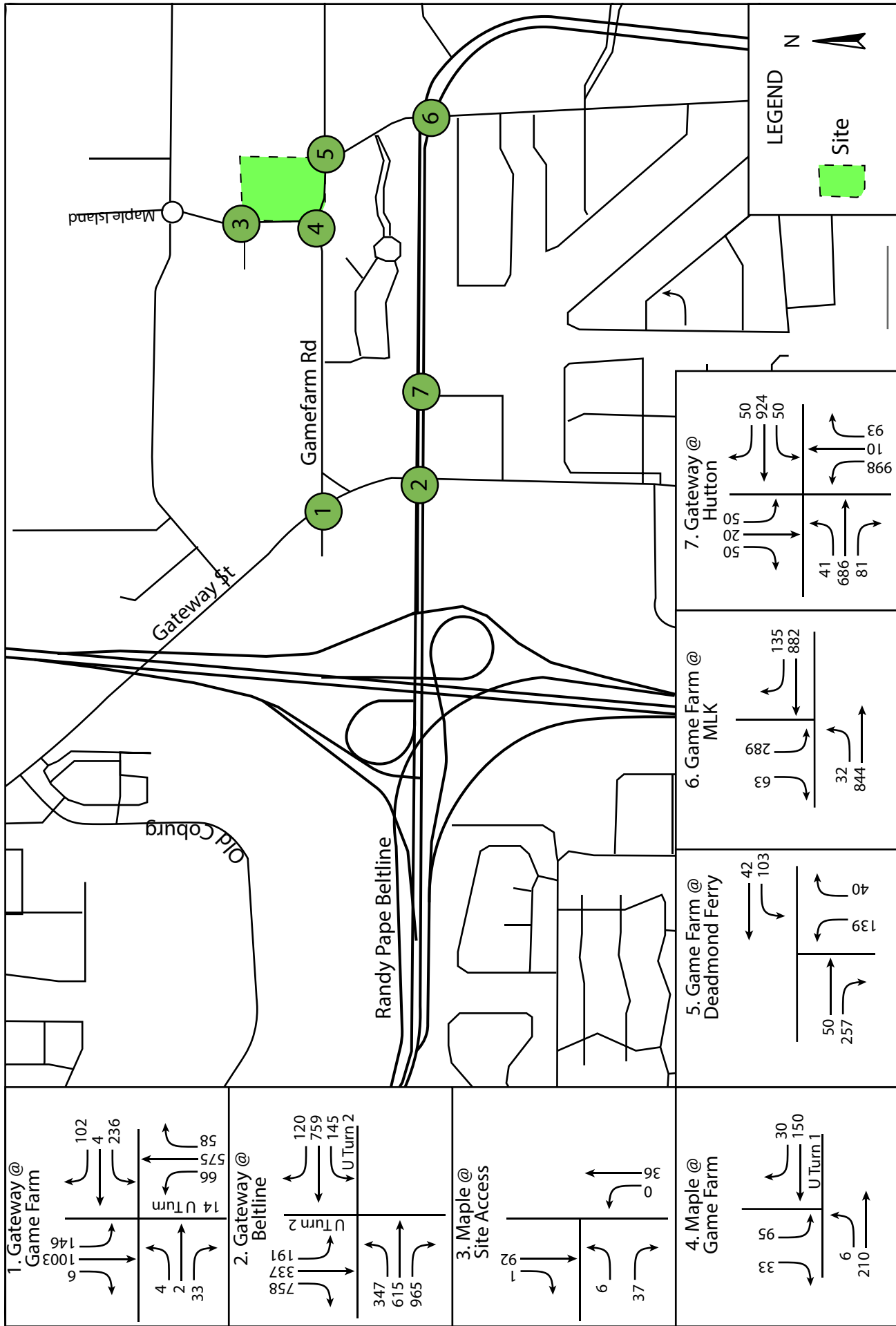
TABLE 13: INTERSECTION PERFORMANCE: PROPOSED ZONING

Intersection	Mobility Standards LOS	2035 Background	2035 Build
Maple Island Rd @ Site Access	D	A	A
Maple Island Rd @ Game Farm Rd	D	A	A
Game Farm Rd @ Deadmond Ferry Road	D	C	C
Game Farm Rd @ Beltline Rd/ Martin Luther King Jr Parkway	D	B	B
Gateway Street @ Game Farm Rd	D	C	C
Gateway St @ Beltline Rd	D	D	D
Game Farm @ Site Access	D	N/A	B
Hutton St @ Game Farm	D	D	D



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Figure 15: Trip Distribution for TPR Findings



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Figure 16: Year 2035 PM Background Peak Hour Traffic Volumes

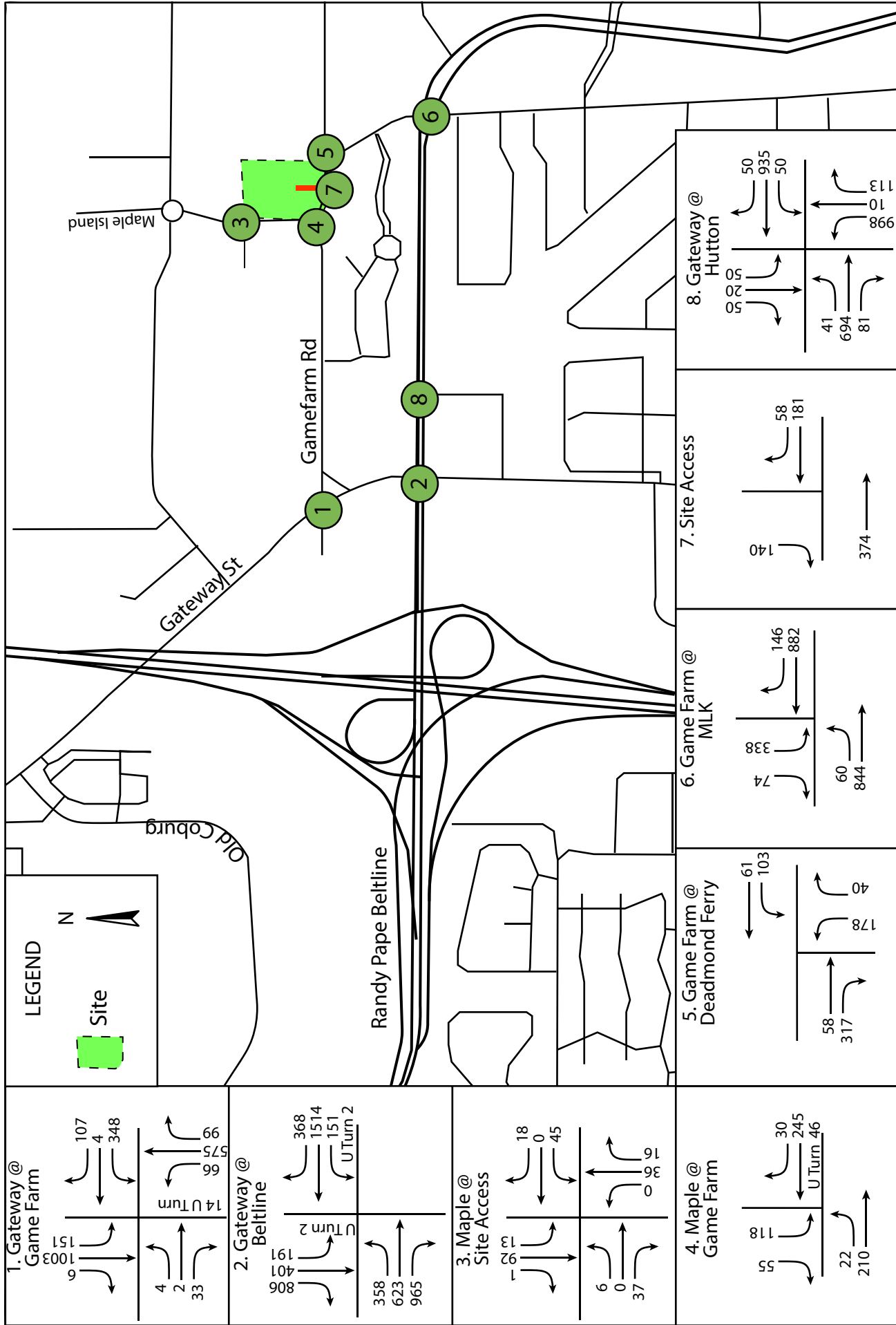


Figure 17: Year 2035 PM Traffic Volumes with Zone Change

Peace Health-Inpatient Rehabilitation Hospital, Springfield, OR

8.6 TRANSPORTATION PLANNING RULE FINDINGS

Consistent with the Transportations Rule (TPR), the following elaborates on how this development meets the TPR requirements.

Goal 12, (OAR) 660-12-0060 (1) requires that a local government ensures that an amendment to a functional plan, an acknowledged comprehensive plan, or a land-use regulation (including a zoning map) does not significantly affect an existing or planned transportation facility. A plan or land use amendment significantly affects a transportation facility if it would:

- (a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);*

The existing street classification of the study area roadways is illustrated in Table 12.

TABLE 12: EXISTING STREET CLASSIFICATION

Street	Classification
Maple Island Rd	Local
Game Farm Rd	Collector
Beltline Hwy	Minor/Major Arterial
Martin Luther King Jr Parkway	Minor Arterial
Gateway St	Minor Arterial

The City of Springfield Transportation System Plan identifies the factors considered in street classifications. These are land use patterns, roadway volumes, density of accesses, traffic mix and volumes, safety trends, traffic speeds, intersection spacing, and right-of-way availability and constraints.

The traffic mix is anticipated to be a majority as passenger vehicles with infrequent larger truck deliveries. The mix and levels of traffic are consistent with what is typically found within the types of streets in the study area. The proposed zone change and use will not require a change in street classification.

As demonstrated, the levels of traffic added from the proposed zone change will not change the functional classification of any of the adjacent streets where development traffic will be added.

- (b) Change standards implementing a functional classification system; or*

The standards for implementing a functional classification system are found within the City of Springfield’s Transportation System Plan. The standards are based on street connectivity, spacing of streets, mix and amounts of travel modes, and mobility. The proposed zone change does not need to modify the standards for the street functional classification system.

(c) Result in any of the effects listed in paragraphs (A) through (C) of this subsection based on projected conditions measured at the end of the planning period identified in the adopted TSP. As part of evaluating projected conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.

(A) Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

Development on the property with the proposed zone change will mostly consist of passenger cars, pedestrians, and bicycles, with occasional use by delivery vehicles, etc. This type of use is consistent with the types of uses expected on urban streets, especially local and collector streets.

The proposed zone change will not cause traffic levels, patterns, or access that are inconsistent with the functional classification of an existing or planned transportation facility.

*(B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan;
or*

As demonstrated in Section 8.4, the proposed zone change does not degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards.

(C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan.” OAR 660-12-0060(1)

All existing and planned transportation facilities will meet the applicable standards.

9.0 PARKING

The ITE Parking Generation Manual is used to estimate the minimum number of parking spaces for the proposed Rehabilitation Hospital. ITE Land Use 610-Hospital has a parking estimate of 2.25 stalls per 1,000 sf. At 67,000 sf, the minimum parking spaces needed is 151.

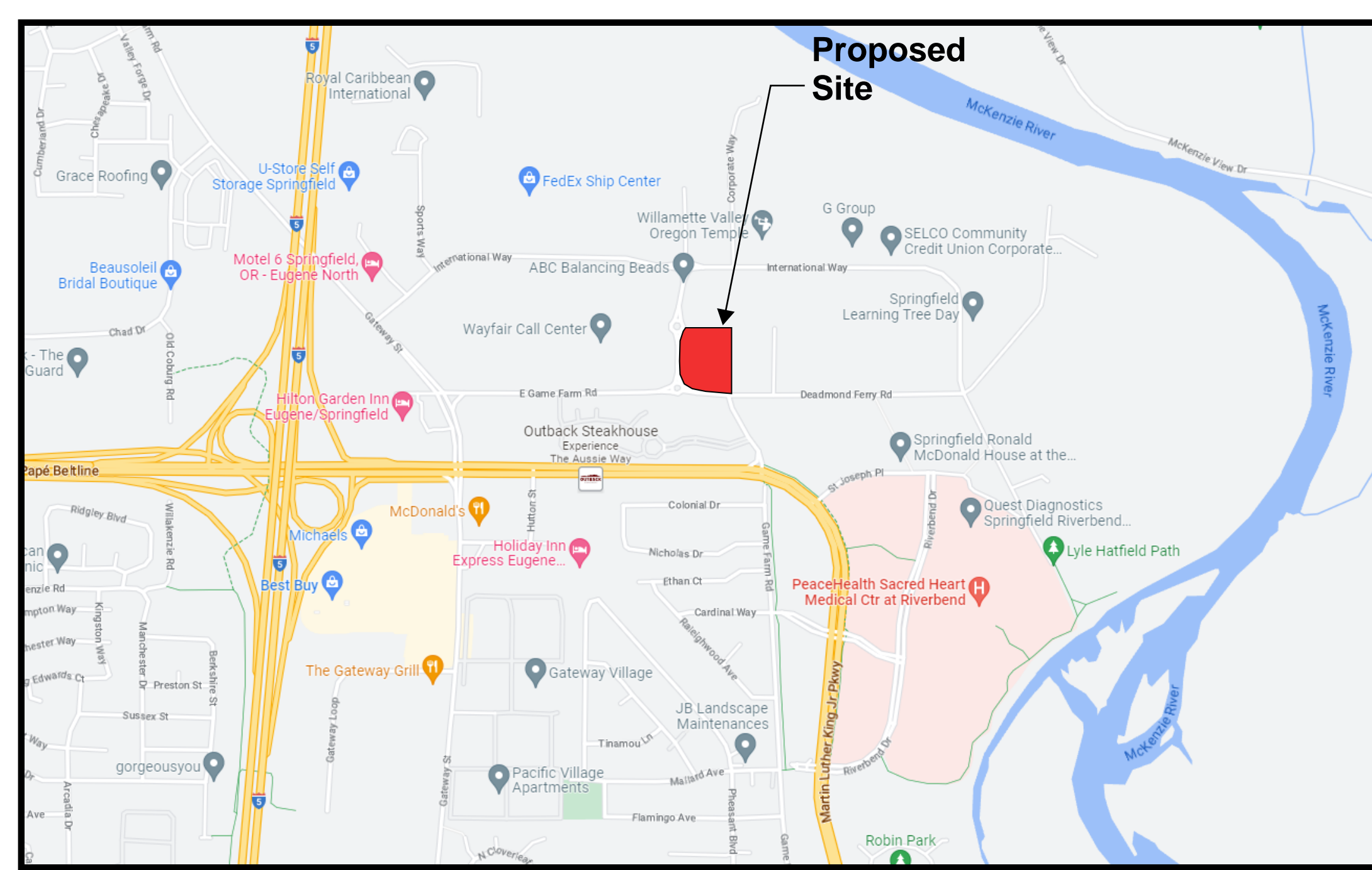
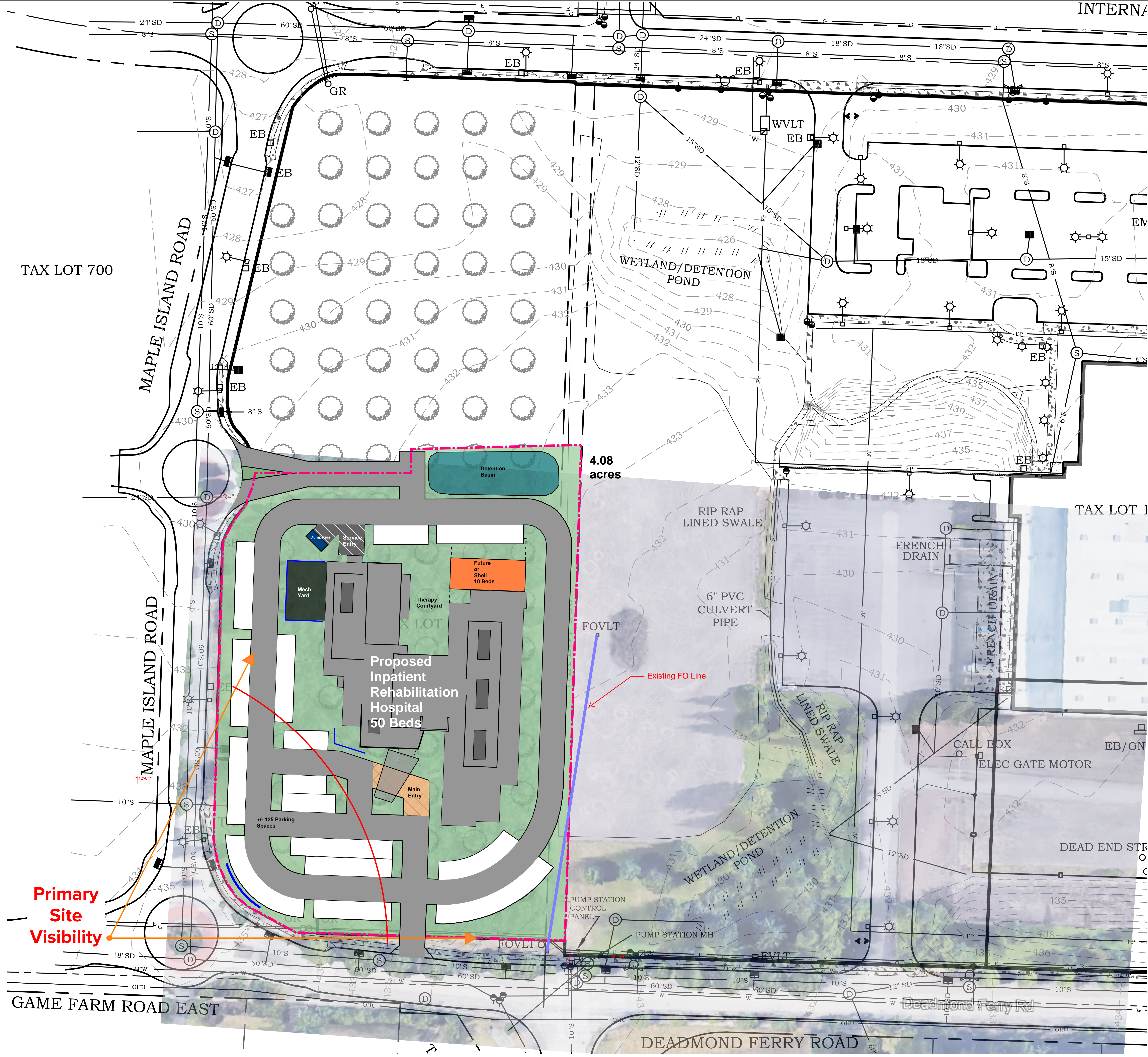
10.0 CONCLUSION

This report provides the Traffic Impact Analysis and findings prepared for the proposed zone change and a 50-bed rehabilitation hospital in Springfield, Oregon. The analysis evaluates the transportation impacts as per the City of Springfield, evaluating adjacent roadway and intersection operation with the addition of development traffic for the year of completion and 5 years into the future. Additionally, a TPR analysis was evaluated for the proposed zone change.

FINDINGS

- The addition of development trips does not trigger any intersections to not meet the LOS standards.
- The intersection of Gateway St at Beltline Rd currently operates at LOS F during the PM peak hour. The City has identified improvements at this intersection, which are reasonably assumed to be constructed within the 20-year planning horizon. With these improvements, the intersection will meet the mobility standards.
- The addition of development traffic does not substantially increase queuing conditions.
- There is no off-site mitigation needed for this development.
- TPR findings are demonstrated to be met.
- The minimum number of parking spaces, as per the ITE Parking Generation Manual, is 151 for the 67,000-sf facility.

PEACEHEALTH REHABILITATION HOSPITAL

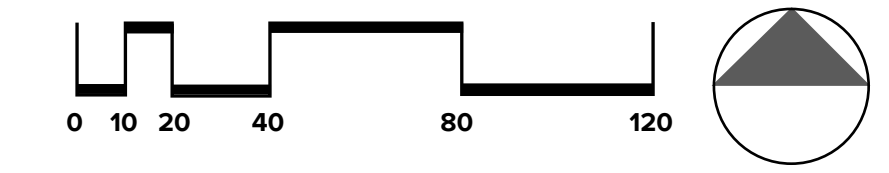


AREA MAP

TAX LOT 700

TAX LOT 1

Primary Site Visibility



SITE PLAN

PEACEHEALTH REHABILITATION HOSPITAL

TECH MEMO

DATE: May 16, 2023

TO: Michael Liebler, PE
City of Springfield

FROM: Kelly Sandow P.E.
Sandow Engineering

RE: Scope of Work- TPR and TIA

The following provides the trip generation estimate and proposed Scope of Work for the proposed zone change and development of tax lot 1000 and a portion of tax lots 800, 900, and 1100 of Assessor's Map 17-03-15-40, for a total of 5.0 acres.

Development Proposal

The site is currently zoned "Campus Industrial" (CI). The applicant is proposing a zone change to "Community Commercial" (CC).

The development proposal is a 67,000 square foot inpatient rehabilitation facility with 50 beds. The rehabilitation facility provides physical and neurological rehabilitation for adults. Staffing is anticipated at:

- Day Shift - 78 staff
- Evenings - 56 staff
- Nights - 22 staff

The primary access will be via a new access connection to Game Farm Road approximately 250 feet east of Maple Island Road. This access will serve the primary parking area and patient drop-off/pick-up area. This access will be right-out right-in with a curbed median on Game Farm to restrict movements. A second access is proposed via a driveway connection to the east side of the roundabout on Maple between Game Farm and International Way.

Site Information

The development site is comprised of tax lot 1000, and a portion of tax lots 800, 900, and 1100. The site is located at the northeast corner of the intersection of Game Farm Road at Maple Island Road. The site is approximately 5.0 acres and is currently vacant.

Game Farm and Deadmond Ferry Rd are classified as Major Collectors along the site frontage and Maple Island Road is classified as a local street.



Site Location and Access

TRANSPORTATION PLANNING RULE ANALYSIS

Existing Zoning Trip Generation

The existing zoning is Campus Industrial-CI. Uses allowed in the CI zoning are:

- Warehouse and wholesale sales
- Corporate Office/Headquarters
- Business Park

Maximum building height is 45 feet

Taking into consideration the typical building footprint layout of adjacent properties with C-I zoning, it is estimated that a reasonable maximum building footprint is approximately 25% percent of the total site. The remaining 75% is landscaping parking, drive aisles, and loading areas.

- Building footprint 25%= 54,450 sf
- 2 Stories = 108,900 sf total

The PM peak hour trip generation is estimated comparing the uses allowed within the zoning. The associated ITE Trip Generation Land Uses with the higher PM peak hour rates are:

- **140 Manufacturing:** primary activity is manufacturing raw materials into finished products. Buildings typically contain offices, manufacturing areas, and storage areas.
- **156 High-Cube Parcel Hub Warehouse:** buildings primarily devoted to the storage of materials. Land use codes 150 Warehousing, 154 High-Cube Transload and Short-Term Storage, 155 High-Cube Fulfillment Center Warehouse, and 157 High-Cube Storage Warehouse were all evaluated. 156 High-Cube Parcel Hub Warehouse has the highest PM peak hour rates.
- **714 Corporate Headquarters Building:** single tenant office buildings that houses the corporate or headquarters of a company.
- **750 Office Park:** planned unit development that contains general office buildings and support services arranged in a park or campus like setting.
- **760 Research and Development Center:** facility devoted to research and development. Buildings contain offices and light fabrication areas
- **770 Business Park:** group of flex-type or incubator buildings. The space contains a mix of office, manufacturing, retail and wholesale stores.

TABLE 1: PM PEAK HOUR TRIP GENERATION COMPARISON-EXISTING ZONING

ITE Code	Rate	Trips
140 Manufacturing	$T=0.87(X)-17.5$	77
156 High-Cube Parcel Hub Warehouse	0.64	70
714 Corporate Headquarters Building	$\ln(T)=0.94\ln(x)+0.58$	147
750 Office Park	$T=1.26(X)+20.98$	158
760 Research and Development Center	$T=0.84(x)+25.08$	117
770 Business Park	$\ln(T)=0.88\ln(x)+0.93$	157

The highest PM peak hour generator is 750 Office park at 158 PM peak hour trips.

Potential Zoning

The proposed zoning is Community Commercial-CC. The allowed uses within CC for this size of lot and the uses with the higher trip generators are:

- Offices and clinics

- Retail Sales and Service (non-auto dependent)
- Hospital

For office and medical uses, the building footprint is estimated considering the parking requirements, a minimum landscaping at 25%, and building heights. The office and clinic use would likely be 2 stories. The building would have a total square footage of approximately 72,000 sf.

The retail use would likely be single story and would be a shopping center style. The building square footage would be approximately 27% of the site area at 58,800 square feet. At this large of a site, the retail will likely include loading docks and circulating roadways reducing the overall building square footage.

The trip generation for each development scenario is illustrated in Table 2.

TABLE 2: PM PEAK HOUR TRIP GENERATION-PROPOSED NC ZONING

Development Potential	ITE Code	Rate	Trips
72,000 sf office	710 General Office	$\ln(T)=0.83\ln(x)+1.29$	126
	714 Corporate Headquarters Building	$\ln(T)=0.94\ln(x)+0.58$	99
72,000 sf medical office building	720 Medical Office Building	$T=4.07(X)-3.17$	290
72,000 sf clinic	630 Clinic	$T=3.53(X)+2.98$	257
58,800 sf retail plaza	821 Shopping Plaza (40-150 ksf)	5.19 trips/ksf	305
72,000 sf hospital	610-Hospital	$\ln(T)=0.64\ln(x)+2.27$	122

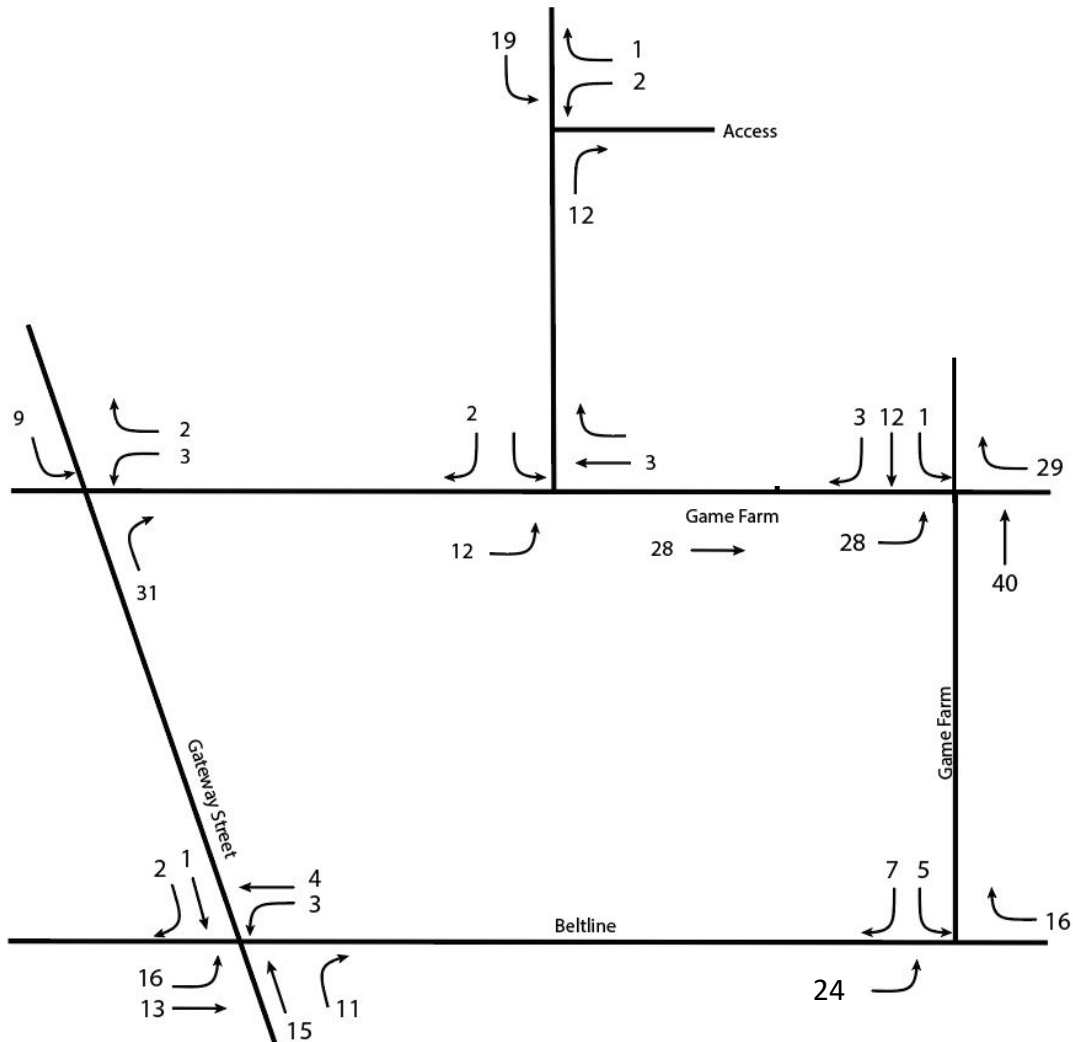
The proposed zoning will generate 305 PM peak hour trips.

The entering and exiting splits are illustrated in Table 3 below. As demonstrated, the increase in trips from the zone change will increase the total trips by 147 with a majority of them entering the site.

	Total	In	Out
Existing Zoning	158	22	136
Proposed Zoning	305	150	155
Increase	147	128	19

The trip distribution follows the existing travel patterns based on recent traffic counts taken at Maple Island Road at Game Farm, Game Farm at Deadmond Ferry, and Maple at the entrance.

The trip distribution is shown in the image below.



**Trip Distribution TPR Analysis
(Trip Differential)**

The following intersections have 20 or more trips added:

- Maple at Site Access
- Maple at Game Farm Road
- Game Farm Road at Deadmond Ferry
- Game Farm at MLK JR Parkway
- Game Farm at Gateway St
- Gateway Street at Beltline

TRAFFIC IMPACT ANALYSIS

The development proposal is a 67,000 square foot inpatient rehabilitation facility with 50 beds. The rehabilitation facility provides physical and neurological rehabilitation for adults. The facility will primarily serve inpatient care

The ITE Trip Generation Manuals does not have a Land Use that is an exact match to the proposed use. The closest land uses are:

- **610-Hospital:** This land use is defined as “any institution where medical or surgical care and overnight accommodations are provided to non-ambulatory and ambulatory patients.”
- **630-Clinic:** This land use is defined as “a facility that provides limited diagnostic and outpatient care but is unable to provide prolonged in-house medical and surgical care”.
- **720-Medical- Dental Office Building:** This land use is defined as “a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care.”

The most closely matched land use is **610-Hospital** as the other land uses are specific to outpatient care, and the proposed use will be primarily inpatient care.

610-Hospital provides trip rates based on the number of beds, square feet, and employees. The independent variable of beds was chosen as the most appropriate independent variable as it's the driving factor for the number of patients, employees, etc. Additionally, the trip rates for using beds as an independent variable provides the highest trip generation estimate providing a more conservative analysis. The trip generation is illustrated in Table 4.

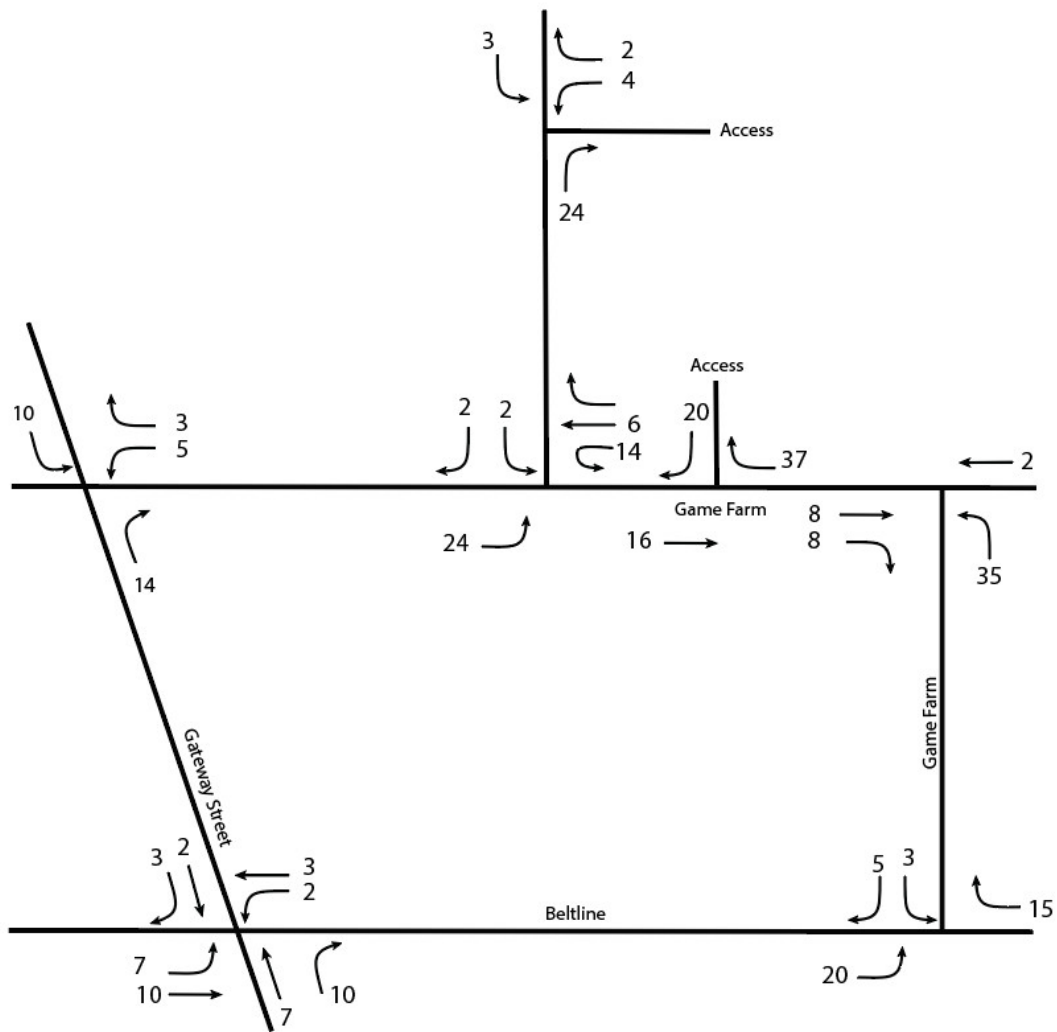
TABLE 1: TRIP GENERATION-DEVELOPMENT PROPOSAL

Time Period	Size (Beds)	Rate	Trips	In	Out
610-Hospital					
Daily	50	22.32	1116	(50%) 558	(50%) 558
AM Peak Hour	50	1.79	90	(72%) 64	(28%) 26
PM Peak Hour	50	1.69	85	(33%) 28	(67%) 57

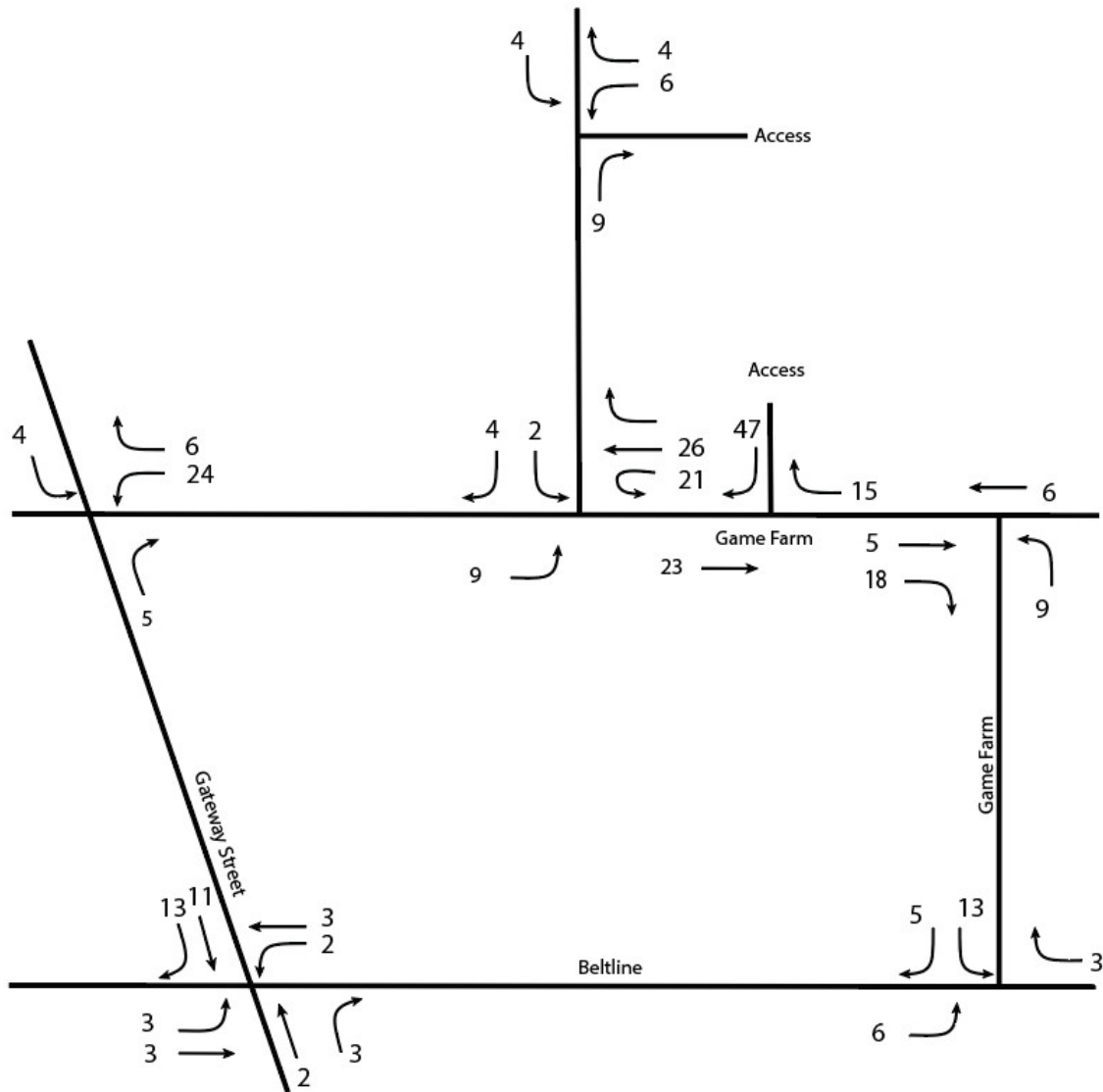
The site will generate more than 1000 ADT, meeting the requirement for a TIA as per SDC 4.2.105.

The trips are distributed on the system based on the existing travel patterns in the area and the reasonable origins and destinations. The trip distribution is illustrated in the image below. As demonstrated, the following intersections have 25 or more trips added during the AM and PM peak hours.

- Maple at Site Access
- Maple at Game Farm Road
- Game Farm Road at Deadmond Ferry
- Game Farm at MLK JR Parkway
- Game Farm at Gateway St
- Gateway Street at Beltline



AM Peak Hour Trip Distribution- Development Proposal



PM Peak Hour Trip Distribution- Development Proposal

ANALYSIS PARAMETERS

TPR Analysis

- Years
 - 2023- Existing
 - 2035- TSP Horizon
- PM Peak Period 4-6 PM
- Intersections to be studied
 - Maple at Access
 - Maple at Game Farm
 - Game Farm at Deadmond Ferry
 - Game Farm at Beltline/MLK
 - Gateway at Game Farm
 - Beltline at Gateway

TIA Analysis

- Years
 - 2023- Existing
 - 2025- Year of Opening
- PM Peak Period 4-6 PM
- AM Peak Hour 7-9 AM
- Intersections to be studied
 - Maple at Access
 - Maple at Game Farm
 - Game Farm at Deadmond Ferry
 - Game Farm at Beltline/MLK
 - Gateway at Game Farm
 - Gateway at Beltline

- Crash analysis
- Queuing analysis
- LOS analysis

PEACEHEALTH REHABILITATION HOSPITAL

CRASH DATA SUMMARY

6035 Peace Health rehab Zone Change

Deadmond Ferry @ Game Farm											
YEAR	PDO	INJURY	FATAL	HEAD	REAR	SIDE	TURN	OTHER	PED	BIKE	TOTAL
2017											0
2018											0
2019	1				1						1
2020											0
2021											0
TOTALS:	1	0	0	0	1	0	0	0	0	0	1

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P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
476	5	4760	1737400.000	200000.0	0.12

BIKE REAR S-N /S-N

Maple Island @ Game Farm											
YEAR	PDO	INJURY	FATAL	HEAD	REAR	SIDE	TURN	OTHER	PED	BIKE	TOTAL
2017											0
2018	1							1			1
2019											0
2020											0
2021											0
TOTALS:	1	0	0	0	0	0	0	1	0	0	1

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P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
423	5	4230	1543950.000	200000.0	0.13

OTHER BIKE REAR SIDE N-E

Game Farm @ beltline											
YEAR	PDO	INJURY	FATAL	HEAD	REAR	SIDE	TURN	OTHER	PED	BIKE	TOTAL
2017	1	1					2				2
2018		1						1			1
2019		1					1				1
2020		2			1			1			2
2021											0
TOTALS:	1	5	0	0	1	0	3	2	0	0	6

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P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
1811	5	18110	6610150.000	1200000.0	0.18

OTHER BIKE TURN SIDE REAR W-E/N-S SS E-W/E-W N-E/E-W N-W/E-W E-W/W-N E-W / E-W

Maple Island @ Business Access											
YEAR	PDO	INJURY	FATAL	HEAD	REAR	SIDE	TURN	OTHER	PED	BIKE	TOTAL
2017											0
2018											0
2019											0
2020											0
2021											0
TOTALS:	0	0	0	0	0	0	0	0	0	0	0

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P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
139	5	1390	507350.000	0.0	0.00

OTHER BIKE TURN SIDE REAR N-S

Game Farm at Gateway											
YEAR	PDO	INJURY	FATAL	HEAD	REAR	SIDE	TURN	OTHER	PED	BIKE	TOTAL
2017		1			1						1
2018		1					1				1
2019											0
2020		1						1			1
2021											0
TOTALS:	0	3	0	0	1	0	1	1	0	0	3

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P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
1706	5	17060	6226900.000	600000.0	0.10

OTHER BIKE TURN SIDE REAR FIX W-S S-N/N-E N-S

Gateway at Beltline											
YEAR	PDO	INJURY	FATAL	HEAD	REAR	SIDE	TURN	OTHER	PED	BIKE	TOTAL
2017	3	13			4		7	4	1		16
2018	4	7			6		2	3			11
2019	6	7			4		9	0			13
2020	4	5			3		4	2			9
2021	2	11			5		2	6			13
TOTALS:	19	43	0	0	22	0	24	15	1	0	62

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P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
4297	5	42970	15684050.000	12400000.0	0.79

OTHER BIKE TURN SIDE REAR

		# Crashes	ADT	MEV	Crash Rate	Critical Crash Rate
1 Deadmond Ferry @ Game Farm	Stop	1	4760	8.69	0.12	0.34 under
2 Maple Island @ Game Farm	Stop	1	4230	7.72	0.13	0.36 under
3 Game Farm @ beltline	Signal	6	18110	33.05	0.18	0.71 under
4 Maple Island @ Business Access	Stop	0	1390	2.54	0.00	0.64 under
5 Game Farm at Gateway	Signal	3	17060	31.13	0.10	0.72 under
6 Gateway at Beltline	Signal	62	42970	78.42	0.79	0.64 over

Weighted Average

Stop	2	19	0.105577111
Signal	71	142.61	0.49787701

CITY OF SPRINGFIELD, LANE COUNTY

BELTLINE RD at MARTIN L KING JR PKY (2), City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

E GAME FARM RD at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

E GAME FARM RD at DEADMOND FERRY RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

SER#	P	R	J	S	W	DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE	SPCL USE	MOVE	A	S	RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED	UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
------	---	---	---	---	---	------	-------	-------------	---------	----------	----------	------	---	---	--------	---	---	---	---	---	---	------	------	---------------	--------	------	-------	-------	------	------	-------	------	------	-----	---	---	-------	-----	--------	---	---	---	---	---	---	-----	------	-----	-------	----------	-------	-------	-------	-------	----	------	----	----	------	-------	---	---	-----	-----	-------	-----	-------	-------

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF SPRINGFIELD, LANE COUNTY

E GAME FARM RD at DEADMOND FERRY RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

E GAME FARM RD at GATEWAY ST, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

1 - 3 of 3 Crash records shown.

SER#	S P R J S W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	ACT	EVENT	CAUSE												
INVEST	E A U I C O DAY		DIST	FIRST STREET	RD CHAR	(MEDIAN) INT-REL	OFFRD WTHR	CRASH	TRLR QTY	MOVE	A S										
RD DPT	E L G N H R TIME		FROM	SECOND STREET	DIRECT	LEGS TRAF-	RNDBT SURF	COLL	OWNER	FROM	PRTC	INJ	G E LICNS	PED							
UNLOC?	D C S V L K LAT		LONG	LRS	LOCTN	(#LANES) CONTL	DRVWY LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X RES	LOC	ERROR	ACT	EVENT	CAUSE			
03220	Y N N N N N	12/29/2020	16	GATEWAY ST	INTER	CROSS N	Y CLD	FIX OBJ	01 NONE	TURN-R							124,062	01			
STATE		TU	0	E GAME FARM RD	S		N	ICE	FIX	PRVTE	W -SE						000	124,062	00		
N		8A			05	1	N	DAY	INJ	PSNGR CAR		01	DRVR	INJC	29	M	OR-Y	047,081	000	01	
N		44 5 8.69	-123 2																		
			32.05																		
03697	N N N N N	10/13/2017	16	GATEWAY ST	INTER	CROSS N	N CLR	S-1STOP	01 NONE 0	STRGHT									29		
NO RPT		FR	0	E GAME FARM RD	NW		N	WET	REAR	PRVTE	NW-SE								000	00	
N		1P			06	1	N	DAY	INJ	PSNGR CAR		01	DRVR	INJC	34	M	OR-Y	026	000	29	
N		44 5 8.7	-123 2																		
			31.93																		
									02 NONE 1	STOP									011	00	
									PRVTE	NW-SE		01	DRVR	NONE	62	M	OR-Y	000	000	00	
									SEMI TOW											00	
																				00	
03403	N N N N N N	10/22/2018	16	GATEWAY ST	INTER	CROSS N	N CLR	O-1 L-TURN	01 NONE 0	STRGHT									087	04	
CITY		MO	0	E GAME FARM RD	CN		N	DRY	TURN	PRVTE	SE-NW								000	087	00
N		5P			04	1	N	DAY	INJ	PSNGR CAR		01	DRVR	INJC	27	F	OR-Y	020	000	04	
N		44 5 8.69	-123 2																		
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									PRVTE	NW-E		01	DRVR	INJC	80	F	OR-Y	000	000	00	
									PSNGR CAR												
																				00	

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF SPRINGFIELD, LANE COUNTY

E GAME FARM RD at GATEWAY ST, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF SPRINGFIELD, LANE COUNTY

E GAME FARM RD at S GAME FARM RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

1 - 1 of 1 Crash records shown.

SER#	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	A	S																				
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE														
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED									
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE			
03003	N	N	N	N			07/18/2018	18	S GAME FARM RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	9	STRGHT													
NONE							WE	0	E GAME FARM RD	S		STOP SIGN	N	DRY	REAR	N/A		S -N														
N							1P			06	0		N	DAY	PDO		PSNGR	CAR	01	DRVR	NONE	00	Unk	UNK	000	000			00			
N							44 5 8.64	-123 2 1.48																								
																02	NONE	9	STOP													
																N/A		S -N	01	DRVR	NONE	00	Unk	UNK	000	000			011	00		
																PSNGR	CAR															

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CITY OF SPRINGFIELD, LANE COUNTY

E GAME FARM RD at S GAME FARM RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GAME FARM RD at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

SER#	S	D	M	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE	A	S	RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED	UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
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CITY OF SPRINGFIELD, LANE COUNTY

GAME FARM RD at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GAME FARM RD at E GAME FARM RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

SER#	S	D	M	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE	A	S	RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED	UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
------	---	---	---	---	---	---	---	---	------	-------	-------------	----------	----------	--------	---	---	---	---	---	---	-----	------	--------------	---------	----------	---------	-------	------	-------	----------	------	---	---	--------	---	---	---	---	---	---	------	------	---------------	--------	------	-------	-------	------	------	-------	------	------	-----	---	---	-------	-----	--------	---	---	---	---	---	---	-----	------	-----	-------	----------	-------	-------	-------	-------	----	------	----	----	------	-------	---	---	-----	-----	-------	-----	-------	-------

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CITY OF SPRINGFIELD, LANE COUNTY

GAME FARM RD at E GAME FARM RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

URBAN NON-SYSTEM CRASH LISTING

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

14 - 17 of 62 Crash records shown.

SER#	P R J S W DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE										A S									
INVEST	E A U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN) INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE														
RD DPT	E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS TRAF-	RNDBT	SURF	COLL	OWNER	FROM		PRTC	INJ	G E LICNS	PED									
UNLOC?	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES) CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO		P#	TYPE	SVRTY	E X RES	LOC	ERROR	ACT	EVENT	CAUSE				
									02 NONE	STOP														
									PRVTE	S -N									011	00				
									PSNGR CAR			02	PSNG	INJC	10	M		000	000	00				
									02 NONE	STOP														
									PRVTE	S -N										011				
									PSNGR CAR			03	PSNG	INJC	06	F		000	000	00				
00902	N N N N N 03/16/2017	16	BELTLINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01 NONE	0	STRGHT								27,07				
CITY																				000	00			
N																								
N	7P			06	0			N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	30	F	SUSP		16,043,026	000	27,07	
N	44 5 2.35	-123 2																						
									02 NONE	STOP														
									PRVTE	S -N														
									PSNGR CAR			01	DRVR	INJC	68	F						000	000	00
02160	N N N N N 06/22/2017	16	BELTLINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01 NONE	0	STRGHT												
NO RPT																								
N																								
N	1P			06	1			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	M	OR-Y		026	000	29	
N	44 5 2.96	-123 2																						
									02 NONE	STOP														
									PRVTE	S -N														
									PSNGR CAR			01	DRVR	INJC	19	F						000	000	00
									03 NONE	STOP														
									PRVTE	S -N														
									PSNGR CAR			01	DRVR	INJC	63	F						000	000	00
									03 NONE	STOP														
									PRVTE	S -N														
									PSNGR CAR			02	PSNG	INJC	68	M						000	000	00
00229	N N N N N 01/20/2020	16	BELTLINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01 NONE	9	STRGHT												
NONE																								
N																								
N	12P			06	0			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK			000	000	00
N	44 5 2.35	-123 2																						
									02 NONE	STOP														
									N/A	S -N														
									PSNGR CAR			01	DRVR	NONE	00	Unk	UNK					000	000	00

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CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

18 - 22 of 62 Crash records shown.

SER#	S	D	M	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE																									
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE	A	S													
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM		PRTC	INJ	G	E	LICNS	PED									
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE				
02038	N	N	N	N	N	N	08/25/2020	16	BELTLINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	9	STRGHT														
CITY							TU	0	GATEWAY ST	S		TRF SIGNAL	N	DRY	REAR	N/A		S -N										000	00				
N							2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000		000	00				
N							44 5 2.75	-123 2 29.69																									
																02	NONE	9	STOP														
																N/A		S -N											011	00			
																PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000		000	000	00				
00630	N	N	N	N	N	N	03/16/2021	16	BELTLINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT												29		
NO RPT							TU	0	GATEWAY ST	S		TRF SIGNAL	N	DRY	REAR		PRVTE		S -N										000	00			
N							5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026		000	00	29			
N							44 5 2.38	-123 2 29.68																									
																02	NONE	0	STOP											011	00		
																PRVTE		S -N															
																PSNGR CAR		01	DRVR	INJC	56	F	OR-Y		000		000	000	00				
03219	N	N	N	N	N	N	11/11/2021	16	BELTLINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT											013	10		
CITY							TH	0	GATEWAY ST	S		TRF SIGNAL	N	DRY	REAR		PRVTE		S -N										022	00			
N							6P			06	0		N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		026		000	00	10			
N							44 5 2.09	-123 2 29.67																									
																02	NONE	0	STOP											022	013	00	
																PRVTE		S -N															
																PSNGR CAR		01	DRVR	INJB	59	F	OR-Y		000		000	000	00				
																03	NONE	0	STOP											011	00		
																PRVTE		S -N															
																PSNGR CAR		01	DRVR	NONE	49	F	OR-Y		000		000	000	00				
00124	N	N	N	N	N	N	01/15/2021	12	BELTLINE RD	INTER	CROSS	N	Y	FOG	FIX OBJ	01	NONE	9	TURN-R										054	05			
CITY							FR		GATEWAY ST	SW		TRF SIGNAL	N	WET	FIX		N/A		W -S										000	00			
N							11P			09	1		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000		000	00				
N							44 5 2.96	-123 2 29.69																									
00715	N	N	N	N	N	N	02/28/2017	12	BELTLINE RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE	0	STRGHT														
CITY							TU		GATEWAY ST	W		TRF SIGNAL	N	WET	REAR		PRVTE		W -E										000	00			
N							6A			06	1		N	DAWN	INJ		PSNGR CAR		01	DRVR	NONE	29	M	OR-Y		043,026		000	00	07			
N							44 5 2.96	-123 2 29.69																									
																02	NONE	0	STOP														
																PRVTE		W -E															
																PSNGR CAR		01	DRVR	INJC	46	F	OR-Y		000		000	000	00				

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CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

URBAN NON-SYSTEM CRASH LISTING

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

30 - 33 of 62 Crash records shown.

SER#	S	D	M	P	R	J	S	W	DATE	CLASS	CITY	STREET	INT-TYPE	SPCL USE	MOVE	A	S																								
INVEST	E	A	U	I	C	O	DAY			DIST	FIRST	STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY																						
RD DPT	E	L	G	N	H	R	TIME			FROM	SECOND	STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM																					
UNLOC?	D	C	S	V	L	K	LAT			LONG	LRS		LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO																				
00976	N	N	N	N	N	N	03/22/2017			12	BELTLINE RD		INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE	0																04				
CITY							WE				GATEWAY ST		CN				DRY	TURN		PRVTE																000	00				
N							11A						04	1			DAY	INJ		PSNGR CAR					01	DRVR	NONE	88	M					OR-Y		016,020	000	04			
N							44 5 2.96				006900200S00																														
																					02	NONE	0																		
																					PRVTE																000	00			
																					PSNGR CAR				01	DRVR	INJC	52	F					SUSP		000	000	00			
02903	N	N	N	N	N		08/14/2017			12	BELTLINE RD		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE	0																	04			
CITY							MO				GATEWAY ST		CN				DRY	ANGL		PRVTE																	000	00			
N							8P						03	1			DUSK	INJ		PSNGR CAR				01	DRVR	NONE	35	M					OR-Y		020	000	04				
N							44 5 2.96				006900200S00																														
																					01	NONE	0																		
																					PRVTE																		000	00	
																					PSNGR CAR				02	PSNG	INJC	09	M							000	000	00	00		
																					02	NONE	0																		
																					PRVTE																		000	00	
																					PSNGR CAR				01	DRVR	NONE	58	F					OR-Y		000	000	00	00		
03906	N	N	N	N	N	Y	10/25/2017			12	BELTLINE RD		INTER	CROSS	N	N	FOG	ANGL-OTH	01	NONE	0																		04		
NO RPT							WE				GATEWAY ST		CN				DRY	TURN		PRVTE																		000	00		
N							9A						03	1			DAY	INJ		PSNGR CAR				01	DRVR	INJC	61	F					OR-Y		000	000	00	00			
N							44 5 2.96				006900100S00																														
																					02	NONE	0																		
																					PRVTE																		000	00	
																					PSNGR CAR				01	DRVR	NONE	43	F					OR-Y		020	000	04	04		
																					02	NONE	0																		
																					PRVTE																		000	00	
																					PSNGR CAR				02	PSNG	INJC	63	F							000	000	00	00		
02943	N	N	N	N	N	N	08/17/2017			12	BELTLINE RD		INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE	0																			02	
CITY							TH				GATEWAY ST		CN				DRY	TURN		PRVTE																			000	00	
N							11P						03	0			DLIT	INJ		PSNGR CAR				01	DRVR	INJC	77	M					OR-Y		004,028	000	02	02			
N							44 5 2.96				006900100S00																														
																					02	NONE	0																		
																					PRVTE																			000	00
																					PSNGR CAR				01	DRVR	NONE	16	M					OR-Y		000	000	00	00		

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CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

34 - 36 of 62 Crash records shown.

SER#	S D M	P R J S W DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE					A S															
INVEST	E A U I C O DAY	RD DPT	E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E	LICNS	PED								
UNLOC?	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E X	RES	LOC	ERROR	ACT	EVENT	CAUSE				
03449	N N Y N N N	09/27/2017	12	BELTLINE RD	INTER	CROSS	N		N	CLR	ANGL-OTH	01 NONE	0	STRGHT												
CITY	WE			GATEWAY ST	CN			TRF SIGNAL	N	DRY	ANGL	PRVTE		N -S										000		00
N		9P			03	1			N	DLIT	INJ	PSNGR CAR		01 DRVR	NONE	32	F	OR-Y		020				000		04
N		44 5 2.96	-123 2 29.69	006900100S00														OR<25								
												02 NONE	0	STRGHT												
												PRVTE		W -E												00
												PSNGR CAR		01 DRVR	INJC	40	M	NONE		000					000	00
																		OR<25								
												02 NONE	0	STRGHT												00
												PRVTE		W -E												00
												PSNGR CAR		02 PSNG	INJC	38	F			000					000	00
												02 NONE	0	STRGHT												00
												PRVTE		W -E												00
												PSNGR CAR		03 PSNG	NO<5	01	F			000					000	00
03120	N N N N	08/30/2017	12	BELTLINE RD	INTER	CROSS	N		N	CLR	ANGL-OTH	01 NONE	9	STRGHT												04
NONE	WE			GATEWAY ST	CN			TRF SIGNAL	N	DRY	TURN	N/A		W -E											000	00
N		9A			04	1			N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000					000	00
N		44 5 2.96	-123 2 29.69	006900100S00														UNK								
												02 NONE	9	TURN-R												00
												N/A		S -E												00
												PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000					000	00
																		UNK								
03094	N N N N N	08/28/2017	12	BELTLINE RD	INTER	CROSS	N		N	SMOK	S-OTHER	01 NONE	9	TURN-L												08
CITY	MO			GATEWAY ST	CN			TRF SIGNAL	N	DRY	TURN	N/A		S -W											000	00
N		12P			01	1			N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000					000	00
N		44 5 2.96	-123 2 29.69	006900200S00														UNK								
												02 NONE	9	TURN-L												00
												N/A		S -W												00
												PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000					000	00
																		UNK								
00233	N N N N N	01/25/2018	12	BELTLINE RD	INTER	CROSS	N		N	CLR	O-1 L-TURN	01 NONE	0	STRGHT												02
CITY	TH			GATEWAY ST	CN			TRF SIGNAL	N	WET	TURN	PRVTE		S -N											000	00
N		7A			04	1			N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	33	F	OR-Y		000					000	00
N		44 5 2.96	-123 2 29.69	006900100S00														OR<25								
												02 NONE	0	TURN-L												00
												PRVTE		N -E												00
												PSNGR CAR		01 DRVR	NONE	72	M	OR-Y		028,004					000	02
																		OR>25								

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CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

43 - 47 of 62 Crash records shown.

SER#	S D M			CLASS	CITY STREET	RD CHAR	INT-TYPE	SPCL USE	INVEST												ACT EVENT	CAUSE			
	P	R	J						DATE	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE	A			S		
	E	A	U																					E L G N H R TIME	FROM
UNLOC?	D	C	S	V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR		
01138	N	N	N	04/19/2019	12	BELTLINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE	9	STRGHT									
NO RPT				FR		GATEWAY ST	CN		TRF SIGNAL	N	DRY	TURN		N/A		S -N							000	00	
N				10A			04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	
N				44 5 2.99	-123 2 29.71	006900100S00																			
													02	NONE	9	TURN-L									
														N/A		N -E							000	00	
														PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	
03247	N	N	N	10/19/2019	12	BELTLINE RD	INTER	CROSS	N	N	RAIN	O-1 L-TURN	01	NONE	9	STRGHT									
CITY				SA		GATEWAY ST	CN		TRF SIGNAL	N	WET	TURN		N/A		S -N							000	00	
N				7P			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	
N				44 5 2.97	-123 2 29.68	006900100S00																			
													02	NONE	9	TURN-L									
														N/A		N -E							000	00	
														PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	
03730	N	N	N	11/27/2019	12	BELTLINE RD	INTER	CROSS	N	N	FOG	O-1 L-TURN	01	NONE	9	STRGHT									
CITY				WE		GATEWAY ST	CN		TRF SIGNAL	N	WET	TURN		N/A		W -E							000	00	
N				9P			03	1		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	
N				44 5 2.95	-123 2 29.72	006900100S00																			
													02	NONE	9	TURN-L									
														N/A		E -S							000	00	
														PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	
04141	N	N	N	12/31/2019	12	BELTLINE RD	INTER	CROSS	N	N	RAIN	O-1 L-TURN	01	NONE	9	STRGHT									
CITY				TU		GATEWAY ST	CN		TRF SIGNAL	N	WET	TURN		N/A		W -E							000	00	
N				6P			03	1		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	
N				44 5 2.96	-123 2 29.69	006900100S00																			
													02	NONE	9	TURN-L									
														N/A		E -S							000	00	
														PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	
00064	N	N	N	01/07/2020	12	BELTLINE RD	INTER	CROSS	N	N	RAIN	O-1 L-TURN	01	NONE		STRGHT									
CITY				TU		GATEWAY ST	CN		TRF SIGNAL	N	WET	TURN		PRVTE		S -N							000	00	
N				6P			04	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	39	F	OR-Y		000	000	
N				44 5 2.97	-123 2 29.71	006900200S00																			
													02	NONE		TURN-L									
														PRVTE		N -E							000	00	
														PSNGR CAR		01	DRVR	INJB	72	F	OR-Y	004,028	000	000	

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CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

48 - 52 of 62 Crash records shown.

SER#	S D M		DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE		SPCL USE				A S																
	P	R					J	S	W	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE	PRTC	INJ	G	E	LICNS	PED	ERROR	ACT	EVENT	CAUSE			
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE	
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE	
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
01266	Y	N	N	N	N	N	05/30/2020	12	BELTLINE RD	INTER	CROSS	N	Y	RAIN	FIX OBJ	01	NONE	STRGHT										054	16,01
							SA		GATEWAY ST	CN		TRF SIGNAL	N	WET	FIX		PRVTE	UN-UN									000	054	00
							10P			01	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	49	M	SUSP		047,081	025		16,01
							44 5 2.96	-123 2 29.69	006900100S00																				
02009	N	N	N	N	N	N	08/22/2020	12	BELTLINE RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	AMBLN	STRGHT											40,02
							SA		GATEWAY ST	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	W -E									000		00
							12P			04	1		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	45	M	OR-Y		000	000		00
							44 5 2.96	-123 2 29.69	006900200S00																				
																01	AMBLN	STRGHT									000		00
																PRVTE	W -E										000		00
																PSNGR CAR			02	PSNG	INJC	22	M			000	000		00
																02	NONE	STRGHT									000		00
																PRVTE	S -N										000		00
																PSNGR CAR			01	DRVR	INJC	43	M	OR-Y		028	000		40,02
02453	N	N	N	N	N	N	10/10/2020	12	BELTLINE RD	INTER	CROSS	N	N	RAIN	O-1 L-TURN	01	NONE	TURN-L											02
							SA		GATEWAY ST	CN		TRF SIGNAL	N	WET	TURN		PRVTE	N -E									000		00
							11A			04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	79	F	OR-Y		028	000		02
							44 5 2.95	-123 2 29.7	006900200S00																				
																02	NONE	STRGHT									000		00
																PRVTE	S -N										000		00
																PSNGR CAR			01	DRVR	NONE	40	F	OR-Y		000	000		00
00946	N	N	N	N	N	N	04/07/2020	12	BELTLINE RD	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE	TURN-L											04
							TU		GATEWAY ST	CN		TRF SIGNAL	N	DRY	TURN		N/A	W -N									000		00
							1A			03	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
							44 5 2.97	-123 2 29.7	006900100S00																				
																02	NONE	STRGHT									000		00
																N/A	N -S										000		00
																PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000	000		00
00023	N	N	N	N	N	N	12/04/2021	12	BELTLINE RD	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE	STRGHT											22,04
							SA		GATEWAY ST	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	S -N									000		22
							5A			02	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	50	M	OR-Y		020	000		04
							44 5 2.96	-123 2 29.69	006900100S00																				
																02	NONE	STRGHT									000		00
																PRVTE	E -W										000		00
																PSNGR CAR			01	DRVR	INJB	44	M	OR-Y		000	000		00

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CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

61 - 62 of 62 Crash records shown.

SER#	S	D	M	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE																		
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE														
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED								
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE		
00488	N	N	N	N			02/12/2020	16	BELTLINE RD	INTER	CROSS	N	N	FOG	O-1 L-TURN	01	NONE	9	STRGHT												
NO RPT							WE	0	GATEWAY ST	CN		L-GRN-SIG	N	DRY	TURN	N/A		S -N									000		00		
N							6A			04	1		N	DAWN	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00		
N							44 5 2.75	-123 2 29.69																							
																02	NONE	9	TURN-L												
																	N/A		N -E								000		00		
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00		
03282	N	N	N	N	N	N	11/16/2021	16	BELTLINE RD	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE	0	TURN-L									010	04,27		
CITY							TU	0	GATEWAY ST	CN		TRF SIGNAL	N	DRY	TURN	RENTL		S -W									000		00		
N							10P			02	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	63	M	OTH-Y		020,016	038		04,27		
N							44 5 2.75	-123 2 29.68																							
																02	NONE	0	TURN-L												
																	PRVTE		W -N								000	010		00	
																	PSNGR CAR		01	DRVR	INJC	24	F	OR-Y		000	000		00		

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CITY OF SPRINGFIELD, LANE COUNTY

GATEWAY ST at BELTLINE RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

MAPLE ISLAND RD at E GAME FARM RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

1 - 1 of 1 Crash records shown.

SER#	S	D	M	P	R	J	S	W	DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	MOVE	A	S	G	E	LICNS	PED	ACT	EVENT	CAUSE	
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED	ACT	EVENT	CAUSE	
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED	ACT	EVENT	CAUSE			
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
00075	Y	N	N	N	N	N	01/04/2017	17	MAPLE ISLAND RD	INTER	3-LEG	N	Y	SNOW	FIX OBJ	01	NONE	9	TURN-L							124,050	01		
NONE							WE	0	E GAME FARM RD	CN		YIELD	Y	ICE	FIX	N/A		N -E								001	00		
N							11A			03	4		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00	
N							44 5 9.51	-123 2 6.88																					

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CITY OF SPRINGFIELD, LANE COUNTY

MAPLE ISLAND RD at E GAME FARM RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

CITY OF SPRINGFIELD, LANE COUNTY

MAPLE ISLAND RD and Intersectional Crashes at MAPLE ISLAND RD, City of Springfield, Lane County, 01/01/2017 to 12/31/2021

PEACEHEALTH REHABILITATION HOSPITAL

Intersection:		1: Game Farm @ Deadmond Ferry							City:		Springfield											
Counter:		Sandow Engineering							Date:		Thursday, March 23, 2023											
Total of All Vehicles																						
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB
7:00	7:15	0	0	0	0	0	4	11	15	16	0	19	35	9	7	0	16	66	0	0	0	0
7:15	7:30	0	0	0	0	0	3	7	7	19	0	25	44	11	5	0	16	67	0	0	0	0
7:30	7:45	0	0	0	0	0	2	5	7	17	0	30	47	14	7	0	21	73	0	0	0	0
7:45	8:00	0	0	0	0	0	2	7	9	27	0	45	72	13	8	0	21	102	0	0	0	0
8:00	8:15	0	0	0	0	0	2	9	11	25	0	33	58	23	8	0	31	100	0	0	0	0
8:15	8:30	0	0	0	0	0	2	14	16	29	0	23	52	15	8	0	23	91	0	0	1	0
8:30	8:45	0	0	0	0	0	1	10	11	13	0	18	31	20	12	0	32	74	1	0	0	1
8:45	9:00	0	0	0	0	0	4	9	13	14	0	31	45	7	10	0	17	75	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Period Total		0	0	0	0	0	18	69	87	160	0	224	384	112	65	0	96	648	1	0	1	1
PM Peak Hour Count Summary																						
Peak Volumes	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
	0	0	0	0	0	9	32	41	98	0	131	229	65	31	0	96	366	0	0	1	0	
PHF	0.00	0.00	0.00	0.00	0.00	0.75	0.57	0.64	0.84	0.00	0.73	0.80	0.71	0.97	0.00	0.77	0.90					
Trucks	0	0	0	0	0	0	4	4	2	0	0	0	0	1	0	0						
% Trucks	0%	0%	0%	0%	0%	0%	13%	10%	2%	0%	0%	0%	0%	3%	0%	0%						

Seasonally Adjusted Peak Hour

236	←	140
	→	96

%	Ped	0
0.00%	L →	0
32.29%	T →	31
67.71%	R ↓	65

0			
↓	↑	0	
Southbound			
#DIV/OI	#DIV/OI	#DIV/OI	%
R ←	T ↓	L →	PED
0	0	0	0
1: Game Farm @ Deadmond Ferry			
1	131	0	98
Ped	L ←	T ↑	R →
%	57.2%	0.0%	42.8%
Northbound			
97	↓	↑	229
326			

0	↑	R	0.00%
9	←	T	21.95%
32	↓	L	78.05%
0		Ped	%

←	41
→	129

SAF Adjustment Factor 1.000

366

1: Game Farm @ Deadmond Ferry

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
7:00 AM							4	11			16	19			9	7	66	
7:15 AM							7				19	25			11	5	67	
7:30 AM							3	2			17	30			14	7	73	
7:45 AM							2	7			27	45			13	7	101	307
8:00 AM							2	8			24	33			23	8	98	339
8:15 AM							2	11			28	23			15	8	87	359
8:30 AM	1						1	9	1		12	18			20	11	71	357
8:45 AM							4	9			14	30			5	10	72	328
9:00 AM																	0	230
9:15 AM																	0	143
9:30 AM																	0	72
9:45 AM																	0	0
Total	1	0	0	0	0	0	18	64	1	157	0	223	0	110	63	0		
Peak Hour	1	0	0	0	0	0	9	28	1	96	0	131	0	65	30	0	359	1362

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM													0	
7:15 AM													0	
7:30 AM													0	
7:45 AM												1	1	1
8:00 AM						1			1				2	3
8:15 AM						3			1				4	7
8:30 AM						1			1				3	10
8:45 AM												1	3	12
9:00 AM									1			2	0	10
9:15 AM													0	6
9:30 AM													0	3
9:45 AM													0	0
Total	0	0	0	0	0	5	3	0	1	2	2	0		
Peak Hour	0	0	0	0	0	4	2	0	0	0	1	0	7	11

Bikes

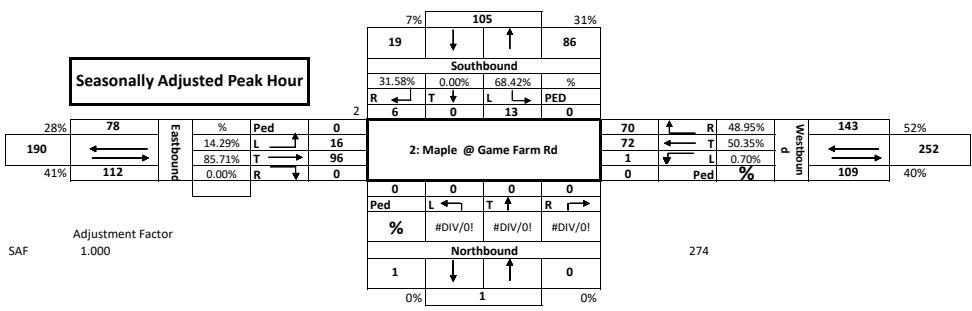
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
7:00 AM													0	0	0	0
7:15 AM													0	0	0	0
7:30 AM													0	0	0	0
7:45 AM													0	0	0	0
8:00 AM													0	0	0	0
8:15 AM													0	0	0	0
8:30 AM												1	0	0	0	1
8:45 AM													0	0	0	0
9:00 AM													0	0	0	0
9:15 AM													0	0	0	0
9:30 AM													0	0	0	0
9:45 AM													0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 2: Maple @ Game Farm Rd		City: Springfield																					
Counter: Sandow Engineering		Date: Wednesday, March 22, 2023																					
Total of All Vehicles																							
Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB
7:00	7:15	1	0	3	4	8	11	0	19	0	0	0	0	0	17	1	18	41		0	0	0	3
7:15	7:30	0	0	2	2	8	8	0	16	0	0	0	0	0	11	5	16	34		0	0	0	0
7:30	7:45	1	0	3	4	14	20	0	34	0	0	0	0	0	23	2	25	63		0	0	0	0
7:45	8:00	2	0	3	5	27	26	0	53	0	0	0	0	0	18	3	21	79	217	0	0	0	0
8:00	8:15	0	0	1	1	13	11	1	25	0	0	0	0	0	29	4	33	59	235	0	0	0	0
8:15	8:30	3	0	6	9	16	15	0	31	0	0	0	0	0	26	7	33	73	274	0	0	0	0
8:30	8:45	0	0	3	3	10	18	1	29	0	0	0	0	0	27	4	31	63	274	0	0	0	2
8:45	9:00	3	0	3	6	4	9	1	14	0	0	0	0	0	18	3	21	41	236	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
Count Period Total		10	0	24		100	118	3		0	0	0	0	0	169	29		453		0	0	0	5
PM Peak Hour Count Summary																							
Peak Volumes		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
PHF		0.50	0.00	0.54	0.53	0.65	0.69	0.25	0.67	0.00	0.00	0.00	0.00	0.00	0.83	0.57	0.85	0.87		0	0	0	0
Trucks		0	0	0		1	1	0		0	0	0		0	0	0							
% Trucks		0%	0%	0%		1%	1%	0%		0%	0%	0%		0%	0%	0%							

Seasonally Adjusted Peak Hour



2: Maple @ Game Farm Rd

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	U-Turn	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
7:00 AM			1	3		8	10								17	1	40	
7:15 AM			2			8	7								11	5	33	
7:30 AM		1		3		14	20								23	2	63	
7:45 AM		2		3		27	26								18	3	79	
8:00 AM			1			12	11	1							29	4	58	
8:15 AM		3		6		16	15								26	7	73	
8:30 AM				3		10	17	1							25	4	60	
8:45 AM		3		3		4	9	1							17	2	39	
9:00 AM																	0	
9:15 AM																	0	
9:30 AM																	0	
9:45 AM																	0	
Total	0	10	0	24	0	99	115	3	0	0	0	0	0	0	166	28		
Peak Hour	0	6	0	13	0	69	72	1	0	0	0	0	0	0	96	16	273	

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM					1								1	
7:15 AM					1								1	
7:30 AM													0	
7:45 AM													0	2
8:00 AM					1								1	2
8:15 AM													0	1
8:30 AM					1							2	3	4
8:45 AM												1	2	6
9:00 AM													0	5
9:15 AM													0	5
9:30 AM													0	2
9:45 AM													0	0
Total	0	0	0	0	1	3	0	0	0	0	0	0	3	1
Peak Hour	0	0	0	0	1	1	0	0	0	0	0	0	0	0

Bikes

Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
7:00 AM													0	0	0	3
7:15 AM													0	0	0	0
7:30 AM													0	0	0	0
7:45 AM													0	0	0	0
8:00 AM													0	0	0	0
8:15 AM													0	0	0	0
8:30 AM													2	0	0	2
8:45 AM													0	0	0	0
9:00 AM													0	0	0	0
9:15 AM													0	0	0	0
9:30 AM													0	0	0	0
9:45 AM													0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	5	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0

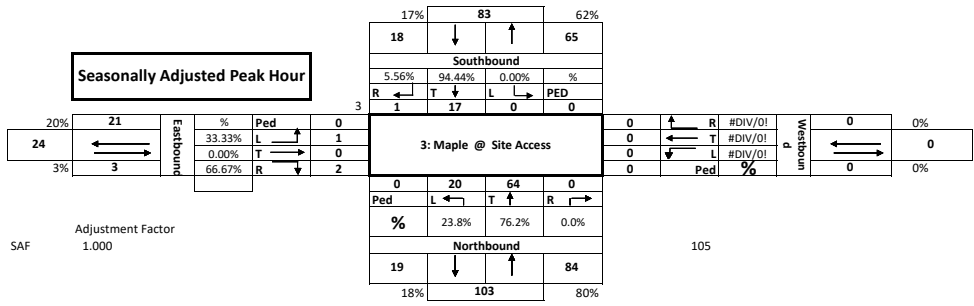
Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
7:00 AM			0			0			0			0	0	0	0	0
7:15 AM		0	0			0			0			0	0	0	0	0
7:30 AM		0	0			0			0			0	0	0	0	0
7:45 AM			0	0		0			0			0	0	0	0	0
8:00 AM			0			0			0			0	0	0	0	0
8:15 AM			0			0			0			0	0	0	0	0
8:30 AM			0			0			0			0	0	0	0	0
8:45 AM			0			0			0			0	0	0	0	0
9:00 AM			0			0			0			0	0	0	0	0
9:15 AM			0			0			0			0	0	0	0	0
9:30 AM			0			0			0			0	0	0	0	0
9:45 AM			0			0			0			0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 3: Maple @ Site Access		City: Springfield																					
Counter: Sandow Engineering		Date: Wednesday, March 22, 2023																					
Total of All Vehicles																							
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians				
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB	
7:00	7:15	1	3	0	4	0	0	0	0	0	7	1	8	1	0	0	1	13		0	0	0	1
7:15	7:30	0	2	0	2	0	0	0	0	0	9	11	20	0	0	0	0	22		0	0	0	0
7:30	7:45	0	5	0	5	0	0	0	0	0	9	7	16	0	0	0	0	21		0	0	0	0
7:45	8:00	1	2	0	3	0	0	0	0	0	22	8	30	2	0	1	3	36	92	0	0	0	0
8:00	8:15	0	1	0	1	0	0	0	0	0	14	2	16	0	0	0	0	17	96	0	0	0	0
8:15	8:30	0	9	0	9	0	0	0	0	0	19	3	22	0	0	0	0	31	105	0	0	0	0
8:30	8:45	1	5	0	6	0	0	0	0	0	13	1	14	0	0	0	0	20	104	0	0	0	0
8:45	9:00	0	6	0	6	0	0	0	0	0	6	0	6	0	0	0	0	12	80	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Period Total		3	33	0	0	0	0	0	0	0	99	33	0	3	0	1	0	172		0	0	0	1

PM Peak Hour Count Summary																						
Peak Volumes	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
PHF	0.25	0.47	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.73	0.63	0.70	0.25	0.00	0.25	0.25	105		0	0	0	0
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
% Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						

Seasonally Adjusted Peak Hour



3: Maple @ Site Access

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left			
7:00 AM			1	3								7	1	1			13		
7:15 AM				2								9	11				22		
7:30 AM				5								9	7				21		
7:45 AM			1	2								22	8			2	36	92	
8:00 AM				1								14	2				17	96	
8:15 AM				9								19	3				31	105	
8:30 AM			1	5								13	1				20	104	
8:45 AM				6								6					12	80	
9:00 AM																	0	63	
9:15 AM																	0	32	
9:30 AM																	0	12	
9:45 AM																	0	0	
Total	0	3	33	0	0	0	0	0	0	0	0	99	33	1	3	0	1		
Peak Hour	0	1	17	0	0	0	0	0	0	0	0	64	20	0	2	0	1	105	293

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM													0	
7:15 AM													0	
7:30 AM													0	
7:45 AM													0	0
8:00 AM													0	0
8:15 AM													0	0
8:30 AM													0	0
8:45 AM													0	0
9:00 AM													0	0
9:15 AM													0	0
9:30 AM													0	0
9:45 AM													0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bikes

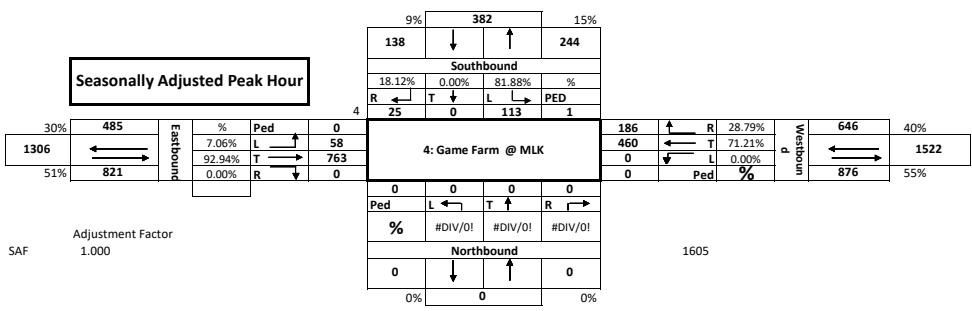
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
7:00 AM													0	0	0	0
7:15 AM													0	0	0	0
7:30 AM													0	0	0	0
7:45 AM													0	0	0	0
8:00 AM													0	0	0	0
8:15 AM													0	0	0	0
8:30 AM													0	0	0	0
8:45 AM													0	0	0	0
9:00 AM													0	0	0	0
9:15 AM													0	0	0	0
9:30 AM													0	0	0	0
9:45 AM													0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
7:00 AM			0			0			0			0	0	0	0	0
7:15 AM		0	0			0			0		0	0	0	0	0	0
7:30 AM		0	0			0			0		0	0	0	0	0	0
7:45 AM			0	0		0			0		0	0	0	0	0	0
8:00 AM			0			0			0		0	0	0	0	0	0
8:15 AM			0			0			0		0	0	0	0	0	0
8:30 AM			0			0			0		0	0	0	0	0	0
8:45 AM			0			0			0		0	0	0	0	0	0
9:00 AM			0			0			0		0	0	0	0	0	0
9:15 AM			0			0			0		0	0	0	0	0	0
9:30 AM			0			0			0		0	0	0	0	0	0
9:45 AM			0			0			0		0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 4: Game Farm @ MLK		City: Springfield																					
Counter: Sandow Engineering		Date: Tuesday, April 18, 2023																					
Total of All Vehicles																							
Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB
7:00	7:15	6	0	18	24	32	66	0	98	0	0	0	0	0	121	8	129	251		0	0	0	0
7:15	7:30	2	0	16	18	26	109	0	135	0	0	0	0	0	155	10	165	318		1	1	0	0
7:30	7:45	6	0	21	27	37	164	0	201	0	0	0	0	0	184	13	197	425		0	0	0	0
7:45	8:00	6	0	31	37	62	119	0	181	0	0	0	0	0	220	13	233	451	1445	0	0	0	0
8:00	8:15	5	0	30	35	37	86	0	123	0	0	0	0	0	167	14	181	399	1533	1	0	0	0
8:15	8:30	8	0	31	39	50	91	0	141	0	0	0	0	0	192	18	210	390	1605	0	0	0	0
8:30	8:45	8	0	14	22	28	80	0	108	0	0	0	0	0	158	5	163	293	1473	0	0	0	0
8:45	9:00	3	0	16	19	28	91	0	119	0	0	0	0	0	190	15	205	343	1365	1	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1026	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	636	0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	343	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Period Total		44	0	177		300	806	0		0	0	0	0	0	1387	96		2810		3	1	0	0
PM Peak Hour Count Summary																							
Peak Volumes		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
PHF		0.78	0.00	0.91	0.88	0.75	0.70	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.87	0.81	0.88	1605	0.89	1	0	0	0
Trucks		1	0	4		2	6	0		0	0	0		0	5	3							
% Trucks		4%	0%	4%		1%	1%	0%		0%	0%	0%		0%	1%	5%							

Seasonally Adjusted Peak Hour



4: Game Farm @ MLK

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left			
7:00 AM			6	18		32	65								121	8	250		
7:15 AM	1	2	16		1	25	107								155	9	314		
7:30 AM		5	21			37	161								184	13	421		
7:45 AM		6	30			61	118								220	13	448	1433	
8:00 AM	1	5	29			37	84								164	13	332	1515	
8:15 AM		8	29			49	91								190	16	383	1584	
8:30 AM		8	14			28	78								156	4	288	1451	
8:45 AM	1	3	15			28	91								187	14	338	1341	
9:00 AM																	0	1009	
9:15 AM																	0	626	
9:30 AM																	0	338	
9:45 AM																	0	0	
Total	3	43	0	172	1	297	795	0	0	0	0	0	0	0	1377	90			
Peak Hour	1	24	0	109	0	184	454	0	0	0	0	0	0	0	758	55	0	1584	4532

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM					1								1	
7:15 AM					2								4	
7:30 AM	1				3								4	
7:45 AM			1		1								3	12
8:00 AM			1		2						3	1	7	18
8:15 AM			2		1						2	2	7	21
8:30 AM					2						2	1	5	22
8:45 AM			1								3	1	5	24
9:00 AM													0	17
9:15 AM													0	10
9:30 AM													0	5
9:45 AM													0	0
Total	1	0	5	3	11	0	0	0	0	0	10	6		
Peak Hour	1	0	4	2	6	0	0	0	0	0	5	3	21	51

Bikes

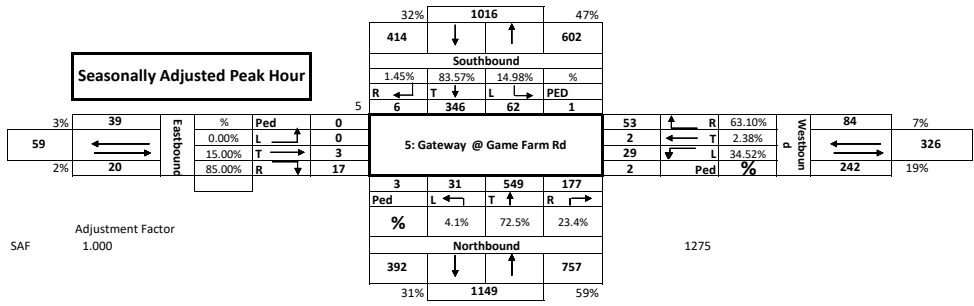
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
7:00 AM													0	0	0	0
7:15 AM													0	0	0	0
7:30 AM													0	0	0	0
7:45 AM													0	0	0	0
8:00 AM													0	0	0	0
8:15 AM													0	0	0	0
8:30 AM													0	0	0	0
8:45 AM													0	0	0	0
9:00 AM													0	0	0	0
9:15 AM													0	0	0	0
9:30 AM													0	0	0	0
9:45 AM													0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
7:00 AM			0			0			0			0	0	0	0	0
7:15 AM		0	0			0			0			0	0	0	0	0
7:30 AM		0	0			0			0			0	0	0	0	0
7:45 AM			0	0		0			0			0	0	0	0	0
8:00 AM			0			0			0			0	0	0	0	0
8:15 AM			0			0			0			0	0	0	0	0
8:30 AM			0			0			0			0	0	0	0	0
8:45 AM			0			0			0			0	0	0	0	0
9:00 AM			0			0			0			0	0	0	0	0
9:15 AM			0			0			0			0	0	0	0	0
9:30 AM			0			0			0			0	0	0	0	0
9:45 AM			0			0			0			0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 5: Gateway @ Game Farm Rd		City: Springfield																					
Counter: Sandow Engineering		Date: Thursday, April 27, 2023																					
Total of All Vehicles																							
Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB
7:00	7:15	0	37	8	45	1	1	3	5	23	75	5	103	3	0	1	4	157		1	0	0	0
7:15	7:30	0	77	15	92	4	0	3	7	34	92	4	130	6	1	1	8	237		0	0	0	0
7:30	7:45	0	94	14	108	13	1	8	22	54	120	8	182	5	0	0	5	317		0	0	1	0
7:45	8:00	0	76	16	92	10	0	7	17	61	162	9	232	4	0	0	4	345	1056	0	1	0	0
8:00	8:15	3	86	14	103	16	1	8	25	31	132	7	170	3	1	0	4	302	1201	1	1	1	0
8:15	8:30	3	90	18	111	14	0	6	20	31	135	7	173	5	2	0	7	311	1275	0	0	1	0
8:30	8:45	1	76	16	93	10	1	7	18	23	110	5	138	8	0	3	11	260	1218	1	0	0	0
8:45	9:00	0	89	13	102	9	1	11	21	16	113	4	133	4	1	1	6	262	1135	0	1	1	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	833	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	522	0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	262	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Period Total		7	625	114		77	5	53		273	939	49		38	5	6		2191		3	3	4	0
PM Peak Hour Count Summary																							
Peak Volumes		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
PHF		0.50	0.92	0.86	0.93	0.83	0.50	0.91	0.84	0.73	0.85	0.86	0.82	0.85	0.38	0.00	0.71	0.92		1	2	3	0
% Trucks		17%	5%	0%		2%	0%	3%		0%	3%	3%		12%	0%	0%							

Seasonally Adjusted Peak Hour



5: Gateway @ Game Farm Rd

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
7:00 AM			36	8		1	1	3		23	74	5		2		1	154	
7:15 AM			72	15		4		3		34	92	4		6	1	1	232	
7:30 AM			93	14		13	1	7		54	114	8		4			308	
7:45 AM			73	16	1	10		7		61	160	9		3			339	1033
8:00 AM	1	2	81	14	1	16	1	8	1	31	128	7		3	1		292	1171
8:15 AM		3	82	18		13		6	1	31	130	6		5	2		296	1235
8:30 AM		1	74	15		10	1	7		23	107	5		8		3	254	1181
8:45 AM			86	13		9		11		15	107	4		4	1	1	251	1093
9:00 AM																	0	801
9:15 AM																	0	505
9:30 AM																	0	251
9:45 AM																	0	0
Total	1	6	597	113	2	76	4	52	2	272	912	48	0	35	5	6	0	1235
Peak Hour	1	5	329	62	2	52	2	28	2	177	532	30	0	15	3	0	0	3439

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM													2	
7:15 AM			5										5	
7:30 AM			1			1							8	
7:45 AM			3										6	21
8:00 AM	1		5										10	29
8:15 AM			8		1								15	39
8:30 AM			2										5	36
8:45 AM			3										9	39
9:00 AM								1					0	29
9:15 AM													0	14
9:30 AM													0	9
9:45 AM													0	0
Total	1	27	0	1	0	1	1	25	1	3	0	0	39	89
Peak Hour	1	17	0	1	0	1	0	16	1	2	0	0	39	89

Bikes

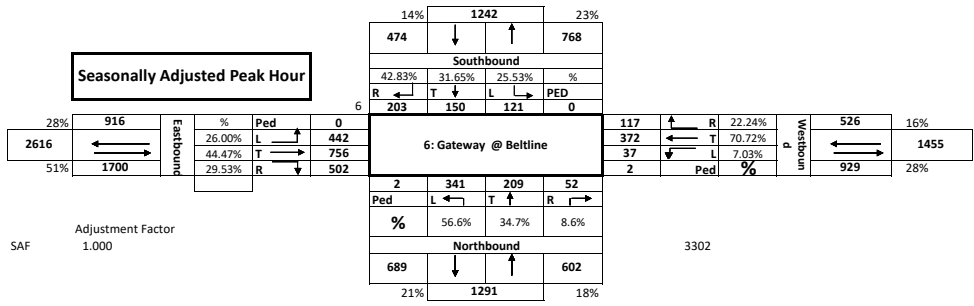
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
7:00 AM													1	0	0	0
7:15 AM		1											0	0	0	0
7:30 AM								1					0	0	1	0
7:45 AM													0	0	0	0
8:00 AM													0	0	0	0
8:15 AM													0	0	0	0
8:30 AM			1										1	0	0	0
8:45 AM					1								0	1	1	0
9:00 AM													0	0	0	0
9:15 AM													0	0	0	0
9:30 AM													0	0	0	0
9:45 AM													0	0	0	0
Total	0	1	1	0	1	0	0	2	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
7:00 AM			0			0			0			0	0	0	0	0
7:15 AM		0	0			0			0			0	0	0	0	0
7:30 AM		0	0			0			0			0	0	0	0	0
7:45 AM			0	0		0			0			0	0	0	0	0
8:00 AM			0			0			0			0	0	0	0	0
8:15 AM			0			0			0			0	0	0	0	0
8:30 AM			0			0			0			0	0	0	0	0
8:45 AM			0			0			0			0	0	0	0	0
9:00 AM			0			0			0			0	0	0	0	0
9:15 AM			0			0			0			0	0	0	0	0
9:30 AM			0			0			0			0	0	0	0	0
9:45 AM			0			0			0			0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 6: Gateway @ Beltline		City: Springfield																						
Counter: Sandow Engineering		Date: Saturday, January 0, 1900																						
Total of All Vehicles																								
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians					
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB		
7:00	7:15	31	19	15	65	20	52	11	83	19	36	75	130	85	122	54	261	539		1	0	2	0	
7:15	7:30	32	26	26	84	22	71	12	105	19	35	54	108	91	165	126	382	679		0	0	0	0	
7:30	7:45	41	34	27	102	51	125	8	184	15	50	89	154	105	179	111	395	835		0	0	0	0	
7:45	8:00	60	30	31	121	20	102	12	134	16	66	89	171	126	187	150	463	889	2942	0	2	0	0	
8:00	8:15	50	31	16	97	23	81	9	113	11	50	98	159	152	156	102	410	779	3182	0	0	1	0	
8:15	8:30	52	55	47	154	23	64	8	95	10	43	65	118	119	234	79	432	799	3302	0	0	1	0	
8:30	8:45	43	28	19	90	16	69	18	103	22	40	84	146	150	154	111	415	754	3221	0	0	0	0	
8:45	9:00	45	37	17	99	19	71	18	108	13	34	62	109	132	138	80	350	666	2998	0	0	0	0	
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2219	0	0	0	0	
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1420	0	0	0	0	
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	666	0	0	0	0	
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Period Total		354	260	198		194	635	96		125	354	616		960	1335	813		5940		1	2	4	0	
PM Peak Hour Count Summary																								
Peak Volumes	Southbound				Approach	Westbound			Approach	Northbound			Approach	Eastbound			Approach	3302	0.93	Pedestrians				
	Right	Thru	Left	Approach		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left				Right	Thru	Left	Approach	SB
PHF	0.85	0.68	0.64	0.77	0.57	0.74	0.77	0.71	0.81	0.79	0.87	0.88	0.83	0.81	0.74	0.92								
Trucks	10	5	0		2	5	0		1	2	7		9	7	3									
% Trucks	5%	3%	0%		2%	1%	0%		2%	1%	2%		2%	1%	1%									

Seasonally Adjusted Peak Hour



6: Gateway @ Beltline

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
7:00 AM	1					18	52	11	1	19	34	72		83	121	54	527	
7:15 AM		29	19	15		21	70	12		18	34	54		90	163	125	667	
7:30 AM		39	33	27		51	124	8		15	49	86		104	177	109	822	
7:45 AM		59	30	31		18	98	12		16	66	86		122	185	150	873	2889
8:00 AM		46	29	16		23	80	9		10	48	97		149	154	102	763	3125
8:15 AM		49	53	47		23	63	8		10	42	65		118	233	78	789	3247
8:30 AM		40	27	19		16	68	18		21	38	83		148	153	111	742	3167
8:45 AM		45	36	17		19	69	18		13	33	61		128	137	74	650	2944
9:00 AM																	0	2181
9:15 AM																	0	1392
9:30 AM																	0	650
9:45 AM																	0	0
Total	1	336	252	198	0	189	624	96	1	122	344	604	0	942	1323	803	0	3247
Peak Hour	0	193	145	121	0	115	365	37	0	51	205	334	0	493	749	439	0	9261

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM	2			2			1	1	3	2	1		11	
7:15 AM	3	1		1	1					1	1	1	12	
7:30 AM	2	1		1	1			1	3	1	2	2	13	
7:45 AM	1			2	2				3	4	2		14	50
8:00 AM	4	2		1	1		1	1	1	3	2		15	54
8:15 AM	3	2			1					1	1	1	9	51
8:30 AM	3	1			1		1	2	1	2	1		12	50
8:45 AM		1			2			1	1	4	1	6	16	52
9:00 AM													0	37
9:15 AM													0	28
9:30 AM													0	16
9:45 AM													0	0
Total	18	8	0	5	9	0	3	7	12	18	12	10	0	0
Peak Hour	10	5	0	2	5	0	1	2	7	9	7	3	51	155

Bikes

Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
7:00 AM								1					0	0	1	0
7:15 AM													0	0	0	0
7:30 AM													0	0	0	0
7:45 AM				2									0	2	0	0
8:00 AM								1					0	0	1	0
8:15 AM								1					0	0	1	0
8:30 AM													0	0	0	0
8:45 AM													0	0	0	0
9:00 AM													0	0	0	0
9:15 AM													0	0	0	0
9:30 AM													0	0	0	0
9:45 AM													0	0	0	0
Total	0	0	0	0	2	0	0	3	0	0	0	0	0	2	2	0
Peak Hour	0	0	0	0	2	0	0	3	0	0	0	0	0	2	2	0

Pedestrians

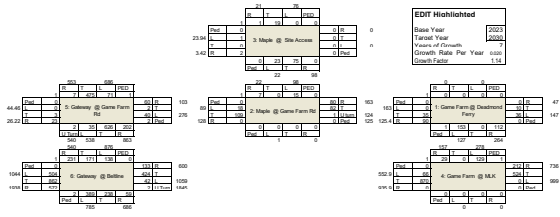
Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
7:00 AM			0			0			0			0	0	0	0	0
7:15 AM		0	0			0			0			0	0	0	0	0
7:30 AM		0	0			0			0			0	0	0	0	0
7:45 AM			0	0		0			0			0	0	0	0	0
8:00 AM			0			0			0			0	0	0	0	0
8:15 AM			0			0			0			0	0	0	0	0
8:30 AM			0			0			0			0	0	0	0	0
8:45 AM			0			0			0			0	0	0	0	0
9:00 AM			0			0			0			0	0	0	0	0
9:15 AM			0			0			0			0	0	0	0	0
9:30 AM			0			0			0			0	0	0	0	0
9:45 AM			0			0			0			0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Global Peak Hour

Intersections							
	1: Game Farm @ Deadmond Ferry	2: Maple @ Game Farm Rd	3: Maple @ Site Access	4: Game Farm @ MLK	5: Gateway @ Game Farm Rd	6: Gateway @ Beltline	
Time Period	Volume	Volume	Volume	Volume	Volume	Volume	Total
7:00 AM 8:00 AM	308	217	92	1,445	1,056	2,942	6060
7:15 AM 8:15 AM	342	235	96	1,533	1,201	3,182	6589
7:30 AM 8:30 AM	366	274	105	1,605	1,275	3,302	6927
7:45 AM 8:45 AM	367	274	104	1,473	1,218	3,221	6657
	367	274	105	1605	1275	3302	6927

Peak Hour **7:30 AM**
 7:45 AM
 8:00 AM
 8:15 AM

200 Background



Intersection: 1: Game Farm @ Deadmond Ferry		City: Springfield																					
Counter: Sandow Engineering		Date: Wednesday, March 22, 2023																					
Total of All Vehicles																							
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians				
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB	
16:00	16:15	0	0	0	0	0	9	12	21	2	0	35	37	49	3	0	52	110		0	0	0	0
16:15	16:30	0	0	0	0	0	5	16	21	11	0	18	29	39	1	0	40	90		0	0	0	0
16:30	16:45	0	0	0	0	0	6	27	33	6	0	28	34	42	9	0	51	118		0	0	0	0
16:45	17:00	0	0	0	0	0	1	15	16	7	0	25	32	46	5	0	51	99	417	0	0	0	0
17:00	17:15	0	0	0	0	0	6	27	33	7	0	30	37	73	4	0	77	147	454	0	0	0	0
17:15	17:30	0	0	0	0	0	6	14	20	12	0	29	41	46	5	0	51	112	476	0	0	0	0
17:30	17:45	0	0	0	0	0	5	32	37	4	0	18	22	28	3	0	31	90	448	0	1	0	1
17:45	18:00	0	0	0	0	0	4	14	18	4	0	13	17	33	0	0	33	68	417	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	270	0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0
18:30	18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Period Total		0	0	0	0	0	42	157		53	0	196		356	30	0		834		0	1	0	1
PM Peak Hour Count Summary																							
Peak Volumes	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians				
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB	
	0	0	0	0	0	19	83	102	32	0	112	144	207	23	0	230	476		0	0	0	0	
PHF	0.00	0.00	0.00	0.00	0.00	0.79	0.77	0.77	0.67	0.00	0.93	0.88	0.71	0.64	0.00	0.75	0.81						
Trucks	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0							
% Trucks	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	1%	1%	0%	0%	0%	0%							

Seasonally Adjusted Peak Hour

361	←	131
	→	230

%	Ped	0	
		0	
		23	
0.00%	L	↑	0
10.00%	T	→	23
90.00%	R	↓	207

0			
0	↓	↑	0
Southbound			
#DIV/OI	#DIV/OI	#DIV/OI	%
R	T	L	PED
0	0	0	0
1: Game Farm @ Deadmond Ferry			
0	112	0	32
Ped	L	T	R
%	77.8%	0.0%	22.2%
Northbound			
290	↓	↑	144
434			

0	↑	R	0.00%
19	←	T	18.63%
83	↓	L	81.37%
0	Ped	%	

102	←
	→
55	→

SAF Adjustment Factor 1.000

476

1: Game Farm @ Deadmond Ferry

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
4:00 PM							8	12			2	35			49	3	109	
4:15 PM							5	16			11	18			39	1	90	
4:30 PM							6	26			6	28			42	9	117	
4:45 PM							1	15			7	25			46	5	99	415
5:00 PM							6	27			7	30			73	4	147	453
5:15 PM							6	14			12	28			46	5	111	474
5:30 PM							5	32			4	18			28	2	89	446
5:45 PM							4	14			4	13			33		68	415
6:00 PM																	0	268
6:15 PM																	0	157
6:30 PM																	0	68
6:45 PM																	0	0
Total	0	0	0	0	0	0	41	156	0	53	0	195	0	356	29	0		
Peak Hour	0	0	0	0	0	0	19	82	0	32	0	111	0	207	23	0	474	1788

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM						1							1	
4:15 PM													0	
4:30 PM						1							1	2
4:45 PM													0	1
5:00 PM													0	1
5:15 PM									1				1	2
5:30 PM												1	1	2
5:45 PM													0	2
6:00 PM													0	2
6:15 PM													0	1
6:30 PM													0	0
6:45 PM													0	0
Total	0	0	0	0	1	1	0	0	1	0	1	0		
Peak Hour	0	0	0	0	0	1	0	0	1	0	0	0	2	5

Bikes

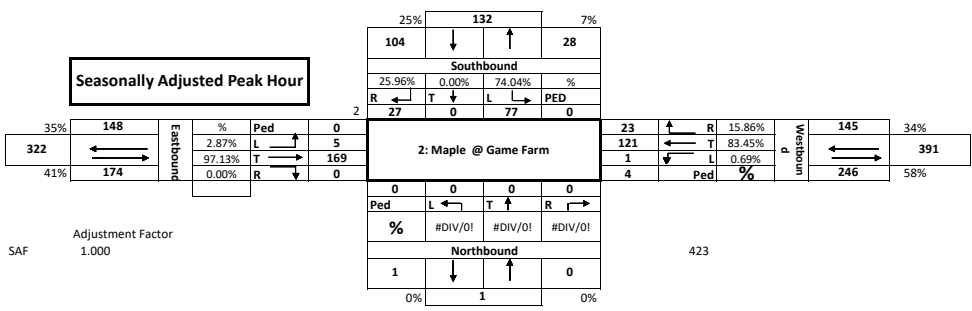
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
4:00 PM													0	0	0	0
4:15 PM													0	0	0	0
4:30 PM													0	0	0	0
4:45 PM													0	0	0	0
5:00 PM													0	0	0	0
5:15 PM													0	0	0	0
5:30 PM						1						1	0	1	0	1
5:45 PM													0	0	0	0
6:00 PM													0	0	0	0
6:15 PM													0	0	0	0
6:30 PM													0	0	0	0
6:45 PM													0	0	0	0
Total	0	0	0	0	0	1	0	0	0	0	1	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 2: Maple @ Game Farm		City: Springfield																					
Counter: Sandow Engineering		Date: Tuesday, March 21, 2023																					
Total of All Vehicles																							
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians				
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB	
16:00	16:15	5	0	14	19	5	22	0	27	0	0	0	0	0	40	1	41	87		0	0	0	0
16:15	16:30	1	0	14	15	10	21	0	31	0	0	0	0	23	1	24	70		0	0	0	0	
16:30	16:45	5	0	13	18	4	25	1	30	0	0	0	0	35	1	36	84		0	0	0	0	
16:45	17:00	4	0	12	16	7	33	0	40	0	0	0	0	44	1	45	101	342	0	1	0	0	
17:00	17:15	13	0	40	53	7	33	0	40	0	0	0	0	54	1	55	148	403	0	1	0	0	
17:15	17:30	5	0	12	17	5	30	0	35	0	0	0	0	36	2	38	90	423	0	2	0	0	
17:30	17:45	6	0	7	13	7	18	0	25	0	0	0	0	15	0	15	53	392	0	0	0	1	
17:45	18:00	2	0	4	6	9	12	0	21	0	0	1	1	23	2	25	53	344	0	0	0	0	
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	196	0	0	0	0	
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106	0	0	0	0	
18:30	18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Period Total		41	0	116		54	194	1		0	0	1		0	270	9		686		0	4	0	1
PM Peak Hour Count Summary																							
Peak Volumes	Southbound				Approach	Westbound			Approach	Northbound			Approach	Eastbound			Approach	423	Pedestrians				
	Right	Thru	Left	0.49		Right	Thru	Left		0.91	Right	Thru		Left	0.00	Right			Thru	Left	0.79	SB	WB
PHF	0.52	0.00	0.48		0.82	0.92	0.25		0.00	0.00	0.00		0.00	0.78	0.63		0	4	0	0			
Trucks	0	0	0		0	0	0		0	0	0		0	0	0								
% Trucks	0%	0%	0%		0%	0%	0%		0%	0%	0%		0%	0%	0%								

Seasonally Adjusted Peak Hour



2: Maple @ Game Farm

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	U-Turn	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
4:00 PM																	86	
4:15 PM		5		14		5	21								40	1	70	
4:30 PM		1		14		10	21								23	1	84	
4:45 PM		5		13		4	25	1							35	1	100	340
5:00 PM		4		12		7	32								44	1	147	401
5:15 PM		13		40		6	33								54	1	89	420
5:30 PM		5		12	1	5	29								36	2	53	389
5:45 PM		6		7		7	18							1	15		53	342
6:00 PM		2		4		9	12				1				23	2	0	195
6:15 PM																	0	106
6:30 PM																	0	53
6:45 PM																	0	0
Total	0	41	0	116	1	53	191	1	0	0	0	1	1	0	270	9		
Peak Hour	0	27	0	77	1	22	119	1	0	0	0	0	0	0	169	5	420	1161

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM													1	
4:15 PM													0	
4:30 PM													0	
4:45 PM													0	1
5:00 PM													0	0
5:15 PM													0	0
5:30 PM													0	0
5:45 PM													0	0
6:00 PM													0	0
6:15 PM													0	0
6:30 PM													0	0
6:45 PM													0	0
Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Bikes

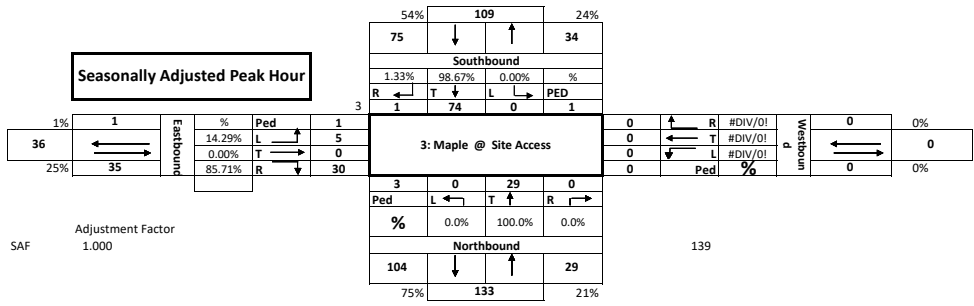
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
4:00 PM													0	0	0	0
4:15 PM													0	0	0	0
4:30 PM													0	0	0	0
4:45 PM													0	1	0	0
5:00 PM													0	1	0	0
5:15 PM													0	1	0	0
5:30 PM													0	0	0	0
5:45 PM													0	0	0	0
6:00 PM													0	0	0	0
6:15 PM													0	0	0	0
6:30 PM													0	0	0	0
6:45 PM													0	0	0	0
Total	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	1	2	0	0	0	0	0	0	0	3	0	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
4:00 PM			0			0			0			0	0	0	0	0
4:15 PM		0	0			0			0			0	0	0	0	0
4:30 PM		0	0			0			0			0	0	0	0	0
4:45 PM			0	0		0			0			0	0	0	0	0
5:00 PM			0			0			0			0	0	0	0	0
5:15 PM			0			0			0			0	0	0	0	0
5:30 PM			0			0			0			0	0	0	0	0
5:45 PM			0			0			0			0	0	0	0	0
6:00 PM			0			0			0			0	0	0	0	0
6:15 PM			0			0			0			0	0	0	0	0
6:30 PM			0			0			0			0	0	0	0	0
6:45 PM			0			0			0			0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 3: Maple @ Site Access		City: Springfield																					
Counter: Sandow Engineering		Date: Tuesday, March 21, 2023																					
Total of All Vehicles																							
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians				
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB	
16:00	16:15	0	14	0	14	0	0	0	0	0	6	0	6	6	0	1	7	27	0	0	0	0	
16:15	16:30	0	14	0	14	0	0	0	0	0	10	1	11	1	0	0	1	26	0	0	0	0	
16:30	16:45	0	15	0	15	0	0	0	0	0	5	0	5	4	0	3	7	27	0	0	1	0	
16:45	17:00	0	11	0	11	0	0	0	0	0	9	0	9	5	0	1	6	26	0	0	0	1	
17:00	17:15	0	32	0	32	0	0	0	0	0	6	0	6	20	0	1	21	59	1	0	1	0	
17:15	17:30	1	16	0	17	0	0	0	0	0	9	0	9	1	0	0	1	27	139	0	0	1	0
17:30	17:45	0	12	0	12	0	0	0	0	0	7	0	7	1	0	1	2	21	133	0	0	0	0
17:45	18:00	0	4	0	4	0	0	0	0	0	9	0	9	2	0	0	2	15	122	0	0	1	0
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	0
18:30	18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Period Total		1	118	0	0	0	0	0	0	0	61	1	0	40	0	7	0	228	1	0	4	1	
PM Peak Hour Count Summary																							
Peak Volumes	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians				
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB	
PHF	0.25	0.58	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.81	0.38	0.00	0.42	0.42	139	0.59	1	0	3	1	
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
% Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%							

Seasonally Adjusted Peak Hour



3: Maple @ Site Access

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
4:00 PM			14								6			6		1	27	
4:15 PM			14								10	1		1			26	
4:30 PM			15						1		5			4		3	27	
4:45 PM			11								9			5	1		26	106
5:00 PM	1		32								5			20	1		58	137
5:15 PM		1	16						1		9			1			27	138
5:30 PM			12								7			1		1	21	132
5:45 PM			4						1		9			2			15	121
6:00 PM																	0	63
6:15 PM																	0	36
6:30 PM																	0	15
6:45 PM																	0	0
Total	1	1	118	0	0	0	0	0	3	0	60	1	1	40	0	7		
Peak Hour	1	1	74	0	0	0	0	0	2	0	28	0	1	30	0	5	138	381

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM													0	
4:15 PM													0	
4:30 PM													0	
4:45 PM													0	0
5:00 PM													0	0
5:15 PM													0	0
5:30 PM													0	0
5:45 PM													0	0
6:00 PM													0	0
6:15 PM													0	0
6:30 PM													0	0
6:45 PM													0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bikes

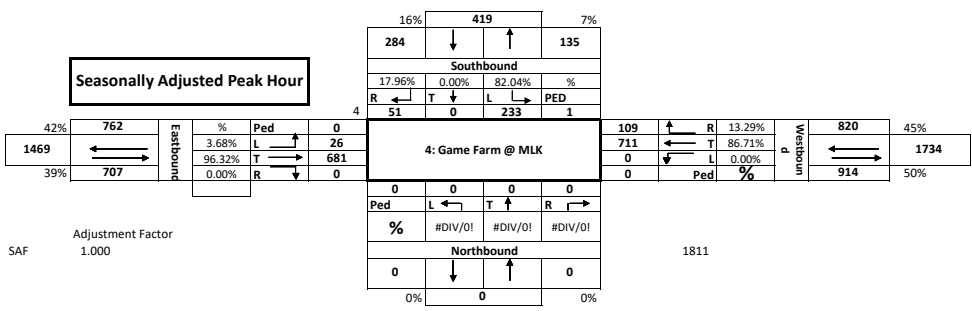
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
4:00 PM													0	0	0	0
4:15 PM													0	0	0	0
4:30 PM													0	0	0	0
4:45 PM													0	0	0	0
5:00 PM								1					0	0	1	0
5:15 PM													0	0	0	0
5:30 PM													0	0	0	0
5:45 PM													0	0	0	0
6:00 PM													0	0	0	0
6:15 PM													0	0	0	0
6:30 PM													0	0	0	0
6:45 PM													0	0	0	0
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
4:00 PM			0			0			0			0	0	0	0	0
4:15 PM		0	0			0			0		0	0	0	0	0	0
4:30 PM		0	0			0			0		0	0	0	0	0	0
4:45 PM			0	0		0			0		0	0	0	0	0	0
5:00 PM			0			0		0	0		0	0	0	0	0	0
5:15 PM			0			0		0	0		0	0	0	0	0	0
5:30 PM			0			0			0		0	0	0	0	0	0
5:45 PM			0			0		0	0		0	0	0	0	0	0
6:00 PM			0			0			0		0	0	0	0	0	0
6:15 PM			0			0			0		0	0	0	0	0	0
6:30 PM			0			0			0		0	0	0	0	0	0
6:45 PM			0			0			0		0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 4: Game Farm @ MLK		City: Springfield																					
Counter: Sandow Engineering		Date: Tuesday, April 18, 2023																					
Total of All Vehicles																							
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians				
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB	
16:00	16:15	8	0	58	66	60	200	0	260	0	0	0	0	0	177	7	184	510		0	0	0	0
16:15	16:30	6	0	40	46	33	178	0	211	0	0	0	0	0	156	3	159	416		1	0	0	0
16:30	16:45	13	0	52	65	23	184	0	207	0	0	0	0	0	152	6	158	430		0	0	0	0
16:45	17:00	12	0	52	64	26	155	0	181	0	0	0	0	0	153	7	160	405	1761	1	0	0	0
17:00	17:15	13	0	78	91	37	215	0	252	0	0	0	0	0	179	5	184	527	1778	0	0	0	0
17:15	17:30	13	0	51	64	23	157	0	180	0	0	0	0	0	197	8	205	449	1811	0	0	0	0
17:30	17:45	10	0	50	60	15	135	0	150	0	0	0	0	0	145	4	149	359	1740	0	0	1	0
17:45	18:00	8	0	33	41	18	118	0	136	0	0	0	0	0	132	8	140	317	1652	0	0	1	0
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1125	0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	676	0	0	0	0
18:30	18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	317	0	0	0	0
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Period Total		83	0	414		235	1342	0		0	0	0	0	0	1291	48		3413		2	0	2	0
PM Peak Hour Count Summary																							
Peak Volumes	Southbound				Approach	Westbound			Approach	Northbound			Approach	Eastbound			Approach	15 Minute Volume	Hourly Volume	Pedestrians			
	Right	Thru	Left	Approach		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left				Right	Thru	Left	Approach
PHF	0.98	0.00	0.75	0.78	109	0.74	0.83	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.86	0.81	0.86	1811	0.86	1	0	0	0
Trucks	0	0	5		1	2	0			0	0	0		0	3	2							
% Trucks	0%	0%	2%		1%	0%	0%			0%	0%	0%		0%	0%	8%							

Seasonally Adjusted Peak Hour



4: Game Farm @ MLK

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left			
4:00 PM			8	58		60	198								174	7	505		
4:15 PM	1	6	39		33	178								152	3	411			
4:30 PM		13	52		23	184								152	5	429			
4:45 PM	1	12	52		26	155								153	6	404	1749		
5:00 PM		13	73		36	214								176	5	517	1761		
5:15 PM		13	51		23	156								197	8	448	1798		
5:30 PM		10	50		15	135		1						145	4	359	1728		
5:45 PM		8	33		18	118		1						132	7	316	1640		
6:00 PM																0	0	1123	
6:15 PM																0	0	675	
6:30 PM																0	0	316	
6:45 PM																0	0	0	
Total	2	83	0	408	0	234	1338	0	2	0	0	0	0	0	0	1281	45		
Peak Hour	1	51	0	228	0	108	709	0	0	0	0	0	0	0	0	678	24	1798	5308

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM													5	
4:15 PM			1			2							5	
4:30 PM													1	
4:45 PM													1	12
5:00 PM			5		1	1							10	17
5:15 PM						1							3	13
5:30 PM													1	12
5:45 PM													1	12
6:00 PM													1	2
6:15 PM													0	1
6:30 PM													0	1
6:45 PM													0	0
Total	0	0	6	1	4	0	0	0	0	0	0	10	3	
Peak Hour	0	0	5	1	2	0	0	0	0	0	0	3	2	42

Bikes

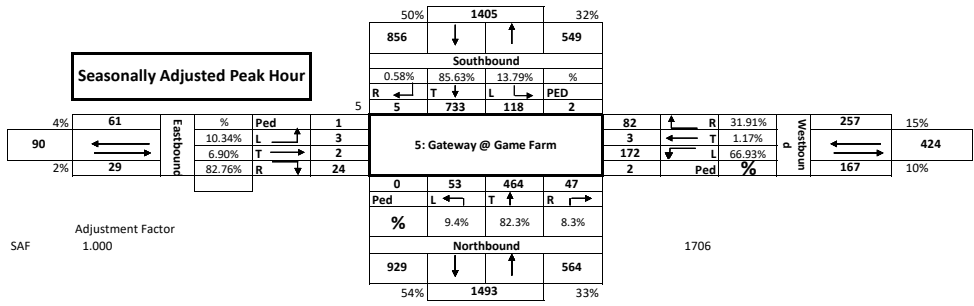
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 5: Gateway @ Game Farm		City: Springfield																					
Counter: Sandow Engineering		Date: Wednesday, April 26, 2023																					
Total of All Vehicles																							
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians				
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB	
16:00	16:15	1	187	39	227	16	0	30	46	10	108	10	128	3	1	1	5	406		1	1	0	3
16:15	16:30	1	155	21	177	17	3	20	40	19	121	17	157	5	0	1	6	380		0	2	1	0
16:30	16:45	2	183	33	218	15	0	36	51	13	107	16	136	6	0	0	6	411		0	1	0	0
16:45	17:00	0	149	31	180	14	0	30	44	13	110	21	144	9	0	2	11	379	1576	1	0	0	1
17:00	17:15	0	201	29	230	33	2	76	111	6	110	5	121	6	1	0	7	469	1639	1	0	0	0
17:15	17:30	3	200	25	228	20	1	30	51	15	137	11	163	3	1	1	5	447	1706	0	1	0	0
17:30	17:45	1	163	18	182	16	3	25	44	12	105	11	128	4	1	1	6	360	1655	0	0	0	1
17:45	18:00	2	120	16	138	9	1	10	20	8	104	8	120	5	0	2	7	285	1561	0	1	0	1
18:00	18:15	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	1097	0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	650	0	0	0	0
18:30	18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0	0	0	0
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
Count Period Total		10	1363	212		140	10	257		96	902	99		41	4	8		3142		3	6	1	6
PM Peak Hour Count Summary																							
Peak Volumes	Southbound				Westbound				Northbound				Eastbound				1706	0.91	Pedestrians				
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB	
PHF	0.42	0.91	0.89	0.93	0.62	0.38	0.57	0.58	0.78	0.85	0.63	0.87	0.67	0.50	0.38	0.66	2	2	0	1			
Trucks	0	15	0		0	0	1		0	6	0		0	0	0								
% Trucks	0%	2%	0%		0%	0%	1%		0%	1%	0%		0%	0%	0%								

Seasonally Adjusted Peak Hour



5: Gateway @ Game Farm

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume			
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left					
4:00 PM	1		1	182	39	1	16		30	1		10	106	10	3		3	1	1	399	
4:15 PM			1	152	21	1	17	3	19		1	19	119	17			5		1	374	
4:30 PM			2	179	33	1	15		36			13	106	16			6			406	
4:45 PM				147	31		14		29			13	106	21	1		9		2	372	1551
5:00 PM	1			194	29		33	2	76			6	110	5			6	1		462	1614
5:15 PM			3	199	25	1	20	1	30			15	136	11			3	1	1	445	1685
5:30 PM			1	160	18		16	3	25			12	105	11	1		4	1	1	357	1636
5:45 PM			2	115	16		8	1	10			8	100	8	1		5		2	275	1539
6:00 PM																				0	1077
6:15 PM																				0	632
6:30 PM																				0	275
6:45 PM																				0	0
Total	2	10	1328	212		4	139	10	255		1	96	888	99	6	41	4	8		1685	4850
Peak Hour	1	5	719	118		2	82	3	171		0	47	458	53	1	24	2	3		1685	4850

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM		5						2					7	
4:15 PM		3						2					5	
4:30 PM		4						1					5	
4:45 PM		1			1			4					6	23
5:00 PM		7						4					7	23
5:15 PM		1						1					2	20
5:30 PM		3											3	18
5:45 PM		5						4					9	21
6:00 PM													0	14
6:15 PM													0	12
6:30 PM													0	9
6:45 PM													0	0
Total	0	29	0	0	0	1	0	14	0	0	0	0	0	0
Peak Hour	0	15	0	0	0	1	0	6	0	0	0	0	20	66

Bikes

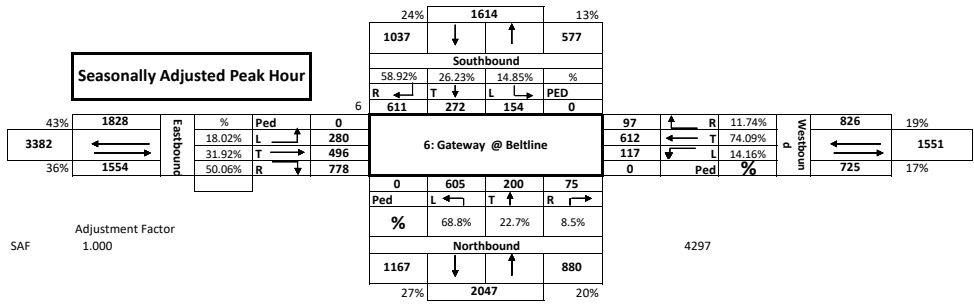
Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
4:00 PM													0	0	0	0
4:15 PM						1							0	1	0	0
4:30 PM													0	0	0	0
4:45 PM		1											1	0	0	0
5:00 PM													0	0	0	0
5:15 PM													0	0	0	0
5:30 PM													0	0	0	0
5:45 PM					1								0	1	0	0
6:00 PM													0	0	0	0
6:15 PM													0	0	0	0
6:30 PM													0	0	0	0
6:45 PM													0	0	0	0
Total	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0

Pedestrians

Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
4:00 PM			0			0			0			0	0	0	0	0
4:15 PM		0	0			0			0			0	0	0	0	0
4:30 PM		0	0			0			0			0	0	0	0	0
4:45 PM			0	0		0			0			0	0	0	0	0
5:00 PM			0			0			0			0	0	0	0	0
5:15 PM			0			0	0		0			0	0	0	0	0
5:30 PM			0			0			0			0	0	0	0	0
5:45 PM			0			0	0		0			0	0	0	0	0
6:00 PM			0			0			0			0	0	0	0	0
6:15 PM			0			0			0			0	0	0	0	0
6:30 PM			0			0			0			0	0	0	0	0
6:45 PM			0			0			0			0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection: 6: Gateway @ Beltline		City: Springfield																						
Counter: Sandow Engineering		Date: Saturday, January 0, 1900																						
Total of All Vehicles																								
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians					
	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB		
16:00	16:15	156	63	32	251	28	133	28	189	18	57	129	204	186	114	64	364	1008		0	0	0	0	
16:15	16:30	113	87	44	244	26	160	39	225	14	54	165	233	222	125	52	399	1101		0	0	0	0	
16:30	16:45	110	54	47	211	27	160	27	214	13	26	125	164	219	157	77	453	1042		0	0	0	0	
16:45	17:00	202	66	50	318	27	142	30	199	19	65	151	235	179	127	65	371	1123	4274	0	0	0	0	
17:00	17:15	163	79	29	271	21	159	25	205	16	56	170	242	179	98	65	342	1060	4326	0	0	0	0	
17:15	17:30	136	73	28	237	22	151	35	208	27	53	159	239	201	114	73	388	1072	4297	0	0	0	0	
17:30	17:45	86	51	30	167	28	114	26	168	7	60	149	216	223	156	47	426	977	4232	0	0	0	0	
17:45	18:00	66	53	32	151	25	109	43	177	14	61	126	201	203	117	30	350	879	3988	0	0	0	0	
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2928	0	0	0	0	
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1856	0	0	0	0	
18:30	18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	879	0	0	0	0	
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Period Total		1032	526	292		204	1128	253		128	432	1174		1612	1008	473			8262		0	0	0	0
PM Peak Hour Count Summary																								
Peak Volumes	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians					
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB		
PHF	0.76	0.86	0.77	0.82	0.90	0.96	0.84	0.96	0.69	0.77	0.89	0.91	0.89	0.79	0.91	0.86	4297	0.96						
Trucks	3	4	1		1	5	0		1	1	10		16	10	7									
% Trucks	0%	1%	1%		1%	1%	0%		1%	1%	2%		2%	2%	3%									

Seasonally Adjusted Peak Hour



6: Gateway @ Beltline

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
4:00 PM		155	61	32		28	133	28		18	57	128		183	113	61	997	
4:15 PM		112	87	44		26	160	38		14	53	161		218	123	52	1088	
4:30 PM		108	53	47		27	156	27		13	26	122		215	155	75	1024	
4:45 PM		202	65	50		26	142	30		19	65	149		173	123	64	1108	4217
5:00 PM		163	77	29		21	158	25		16	56	167		175	97	65	1049	4269
5:15 PM		135	72	27		22	151	35		26	52	157		199	111	69	1056	4237
5:30 PM		84	50	30		28	114	26		7	59	145		220	155	47	965	4178
5:45 PM		64	53	32		25	109	43		14	59	125		197	116	29	866	3936
6:00 PM																	0	2887
6:15 PM																	0	1831
6:30 PM																	0	866
6:45 PM																	0	0
Total	0	1023	518	291	0	203	1123	252	0	127	427	1154	0	1580	993	462		
Peak Hour	0	608	267	153	0	96	607	117	0	74	199	595	0	762	486	273	4237	12723

Trucks

Time Period	Southbound			Westbound			Northbound			Eastbound			15 Minute Volume	Hourly Volume	
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left			
4:00 PM													11		
4:15 PM	1	2								3	1	3	13		
4:30 PM	2	1			4	1			1	4	2	2	18		
4:45 PM		1		1						3	4	2	15	57	
5:00 PM		2								2	6	4	11	57	
5:15 PM	1	1	1		1					3	4	1	16	60	
5:30 PM	2	1						1	1	2	3	1	12	54	
5:45 PM	2								1	4	1		13	52	
6:00 PM									2	1		1	0	41	
6:15 PM													0	25	
6:30 PM													0	13	
6:45 PM													0	0	
Total	9	8	1	1	5	1		1	5	20	32	15	11		
Peak Hour	3	4	1	1	5	0		1	1	10	16	10	7	60	174

Bikes

Time Period	Southbound			Westbound			Northbound			Eastbound			SB	WB	NB	EB
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left				
4:00 PM													0	0	0	0
4:15 PM													0	0	0	0
4:30 PM													0	0	0	0
4:45 PM													0	0	0	0
5:00 PM													0	0	0	0
5:15 PM													0	0	0	0
5:30 PM													0	0	0	0
5:45 PM													0	0	0	0
6:00 PM													0	0	0	0
6:15 PM													0	0	0	0
6:30 PM													0	0	0	0
6:45 PM													0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

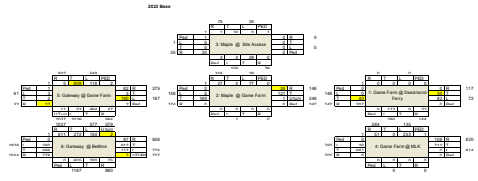
Pedestrians

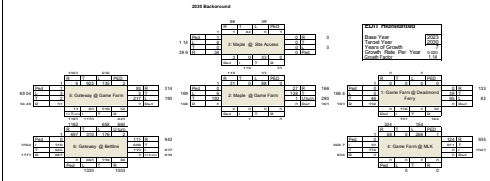
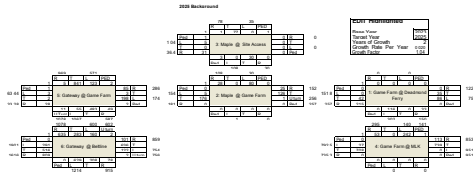
Time Period	NE			NW			SW			SE			SB	WB	NB	EB
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total				
4:00 PM			0			0			0			0	0	0	0	0
4:15 PM		0	0			0			0		0	0	0	0	0	0
4:30 PM		0	0			0			0		0	0	0	0	0	0
4:45 PM			0	0		0			0		0	0	0	0	0	0
5:00 PM			0			0			0		0	0	0	0	0	0
5:15 PM			0			0			0		0	0	0	0	0	0
5:30 PM			0			0			0		0	0	0	0	0	0
5:45 PM			0			0			0		0	0	0	0	0	0
6:00 PM			0			0			0		0	0	0	0	0	0
6:15 PM			0			0			0		0	0	0	0	0	0
6:30 PM			0			0			0		0	0	0	0	0	0
6:45 PM			0			0			0		0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

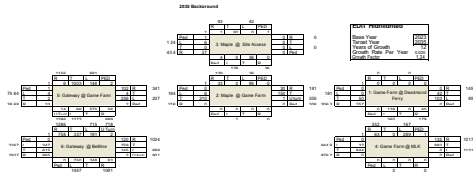
Global Peak Hour

Intersections							
	1: Game Farm @ Deadmond Ferry	2: Maple @ Game Farm	3: Maple @ Site Access	4: Game Farm @ MLK	5: Gateway @ Game Farm	6: Gateway @ Beltline	
Time Period	Volume	Volume	Volume	Volume	Volume	Volume	Total
4:00 PM 5:00 PM	417	342	106	1,761	1,576	4,274	8476
4:15 PM 5:15 PM	454	403	138	1,778	1,639	4,326	8738
4:30 PM 5:30 PM	476	423	139	1,811	1,706	4,297	8852
4:45 PM 5:45 PM	448	392	133	1,740	1,655	4,232	8600
	476	423	139	1811	1706	4326	8852

Peak Hour 4:30 PM
 4:45 PM
 5:00 PM
 5:15 PM







PEACEHEALTH REHABILITATION HOSPITAL

2023 Background AM

Intersection

Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	1	0	2	0	0	0	20	66	0	0	17	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	1	0	2	0	0	0	20	66	0	0	17	1
Entry Volume	3			0			86			18		
Entry Lane Volume (adj)	3			0			86			18		
Exiting Flow Rates	21			0			19			67		
Conflicting Flow	17			87			1			20		
Entry Capacity	1316			1247			1332			1313		
v/c ratio	0.00			0.00			0.06			0.01		
Delay	7.7			2.9			7.9			7.8		
LOS												
95th Percentile Queue (veh)	0.0			0.0			0.2			0.0		
Intersection Delay		6.6										
Intersection v/c		0.05										

2023 Background PM

Intersection

Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	5	0	30	0	0	0	0	29	0	0	74	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	5	0	30	0	0	0	0	29	0	0	74	1
Entry Volume	35			0			29			75		
Entry Lane Volume (adj)	35			0			29			75		
Exiting Flow Rates	1			0			104			34		
Conflicting Flow	74			34			5			0		
Entry Capacity	1260			1299			1328			1333		
v/c ratio	0.03			0.00			0.02			0.06		
Delay	7.9			2.8			7.8			7.9		
LOS												
95th Percentile Queue (veh)	0.1			0.0			0.1			0.2		
Intersection Delay		6.6										
Intersection v/c		0.04										

2023 Background AM

Intersection

Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U Turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	16	96	0	1	72	70	0	0	0	13	0	6
% HV	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	16	96	0	1	73	70	0	0	0	13	0	6
Entry Volume	112			143			0			19		
Entry Lane Volume (adj)	112			144			0			19		
Exiting Flow Rates	79			109			1			86		
Conflicting Flow	14			16			125			74		
Entry Capacity	1319			1317			1212			1260		
v/c ratio	0.08			0.11			0.00			0.02		
Delay	8.0			3.1			8.0			7.9		
LOS												
95th Percentile Queue (veh)	0.3			0.4			0.0			0.0		
Intersection Delay		6.7										
Intersection v/c		0.09										

2023 Background PM

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	5	169	0	1	121	24	0	0	0	77	0	27
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	5	169	0	1	121	24	0	0	0	77	0	27
Entry Volume	174			146			0			104		
Entry Lane Volume (adj)	174			146			0			104		
Exiting Flow Rates	148			246			1			29		
Conflicting Flow	78			5			251			122		
Entry Capacity	1256			1328			1100			1214		
v/c ratio	0.14			0.11			0.00			0.09		
Delay	8.3			3.0			8.3			8.2		
LOS												
95th Percentile Queue (veh)	0.5			0.4			0.0			0.3		
Intersection Delay		7.0										
Intersection v/c		0.12										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	1	0	2	0	0	0	21	69	0	0	18	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	1	0	2	0	0	0	21	69	0	0	18	1
Entry Volume	3			0			90			19		
Entry Lane Volume (adj)	3			0			90			19		
Exiting Flow Rates	22			0			20			70		
Conflicting Flow	18			91			1			21		
Entry Capacity	1315			1243			1332			1312		
v/c ratio	0.00			0.00			0.07			0.01		
Delay	7.7			2.9			7.9			7.8		
LOS												
95th Percentile Queue (veh)	0.0			0.0			0.2			0.0		
Intersection Delay		6.6										
Intersection v/c		0.06										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	5	0	31	0	0	0	0	30	0	0	77	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	5	0	31	0	0	0	0	30	0	0	77	1
Entry Volume	36			0			30			78		
Entry Lane Volume (adj)	36			0			30			78		
Exiting Flow Rates	1			0			108			35		
Conflicting Flow	77			35			5			0		
Entry Capacity	1257			1298			1328			1333		
v/c ratio	0.03			0.00			0.02			0.06		
Delay	7.9			2.8			7.8			7.9		
LOS												
95th Percentile Queue (veh)	0.1			0.0			0.1			0.2		
Intersection Delay		6.6										
Intersection v/c		0.04										

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U Turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	17	100	0	1	75	73	0	0	0	14	0	6
% HV	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	17	100	0	1	76	73	0	0	0	14	0	6
Entry Volume	117			149			0			20		
Entry Lane Volume (adj)	117			150			0			20		
Exiting Flow Rates	82			114			1			90		
Conflicting Flow	15			17			131			77		
Entry Capacity	1318			1316			1206			1257		
v/c ratio	0.09			0.11			0.00			0.02		
Delay	8.0			3.1			8.0			7.9		
LOS												
95th Percentile Queue (veh)	0.3			0.4			0.0			0.0		
Intersection Delay		6.7										
Intersection v/c		0.10										

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	5	176	0	1	126	25	0	0	0	80	0	28
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	5	176	0	1	126	25	0	0	0	80	0	28
Entry Volume	181			152			0			108		
Entry Lane Volume (adj)	181			152			0			108		
Exiting Flow Rates	154			256			1			30		
Conflicting Flow	81			5			261			127		
Entry Capacity	1253			1328			1092			1210		
v/c ratio	0.14			0.11			0.00			0.09		
Delay	8.4			3.1			8.3			8.3		
LOS												
95th Percentile Queue (veh)	0.5			0.4			0.0			0.3		
Intersection Delay		7.0										
Intersection v/c		0.12										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	1	0	2	4	0	2	21	69	24	3	18	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	1	0	2	4	0	2	21	69	24	3	18	1
Entry Volume	3			6			114			22		
Entry Lane Volume (adj)	3			6			114			22		
Exiting Flow Rates	22			27			24			72		
Conflicting Flow	25			91			4			25		
Entry Capacity	1308			1243			1329			1308		
v/c ratio	0.00			0.00			0.09			0.02		
Delay	7.8			2.9			8.0			7.8		
LOS												
95th Percentile Queue (veh)	0.0			0.0			0.3			0.1		
Intersection Delay		6.6										
Intersection v/c		0.07										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	5	0	31	6	0	4	0	30	9	4	77	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	5	0	31	6	0	4	0	30	9	4	77	1
Entry Volume	36			10			39			82		
Entry Lane Volume (adj)	36			10			39			82		
Exiting Flow Rates	1			13			114			39		
Conflicting Flow	87			35			9			6		
Entry Capacity	1247			1298			1324			1327		
v/c ratio	0.03			0.01			0.03			0.06		
Delay	8.0			2.8			7.8			7.9		
LOS												
95th Percentile Queue (veh)	0.1			0.0			0.1			0.2		
Intersection Delay		6.6										
Intersection v/c		0.04										

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U Turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	41	100	0	15	81	73	0	0	0	16	0	8
% HV	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	41	100	0	15	82	73	0	0	0	16	0	8
Entry Volume	141			169			0			24		
Entry Lane Volume (adj)	141			170			0			24		
Exiting Flow Rates	90			116			15			114		
Conflicting Flow	31			41			157			97		
Entry Capacity	1302			1292			1182			1238		
v/c ratio	0.11			0.13			0.00			0.02		
Delay	8.1			3.2			8.0			8.0		
LOS												
95th Percentile Queue (veh)	0.4			0.5			0.0			0.1		
Intersection Delay		6.8										
Intersection v/c		0.11										

2025 Build PM

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	14	176	0	22	152	25	0	0	0	82	0	32
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	14	176	0	22	152	25	0	0	0	82	0	32
Entry Volume	190			199			0			114		
Entry Lane Volume (adj)	190			199			0			114		
Exiting Flow Rates	184			258			22			39		
Conflicting Flow	104			14			272			174		
Entry Capacity	1231			1319			1083			1167		
v/c ratio	0.15			0.15			0.00			0.10		
Delay	8.5			3.2			8.3			8.4		
LOS												
95th Percentile Queue (veh)	0.5			0.5			0.0			0.3		
Intersection Delay		7.1										
Intersection v/c		0.14										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	1	0	2	0	0	0	23	75	0	0	19	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	1	0	2	0	0	0	23	75	0	0	19	1
Entry Volume	3			0			98			20		
Entry Lane Volume (adj)	3			0			98			20		
Exiting Flow Rates	24			0			21			76		
Conflicting Flow	19			99			1			23		
Entry Capacity	1314			1236			1332			1310		
v/c ratio	0.00			0.00			0.07			0.02		
Delay	7.7			2.9			7.9			7.8		
LOS												
95th Percentile Queue (veh)	0.0			0.0			0.2			0.0		
Intersection Delay		6.6										
Intersection v/c		0.06										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	6	0	34	0	0	0	0	33	0	0	84	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	6	0	34	0	0	0	0	33	0	0	84	1
Entry Volume	40			0			33			85		
Entry Lane Volume (adj)	40			0			33			85		
Exiting Flow Rates	1			0			118			39		
Conflicting Flow	84			39			6			0		
Entry Capacity	1250			1294			1327			1333		
v/c ratio	0.03			0.00			0.02			0.06		
Delay	8.0			2.8			7.8			7.9		
LOS												
95th Percentile Queue (veh)	0.1			0.0			0.1			0.2		
Intersection Delay		6.6										
Intersection v/c		0.05										

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U Turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	18	109	0	1	82	80	0	0	0	15	0	7
% HV	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	18	109	0	1	83	80	0	0	0	15	0	7
Entry Volume	127			163			0			22		
Entry Lane Volume (adj)	127			164			0			22		
Exiting Flow Rates	90			124			1			98		
Conflicting Flow	16			18			142			84		
Entry Capacity	1317			1315			1196			1250		
v/c ratio	0.10			0.12			0.00			0.02		
Delay	8.0			3.1			8.0			7.9		
LOS												
95th Percentile Queue (veh)	0.3			0.4			0.0			0.1		
Intersection Delay		6.8										
Intersection v/c		0.11										

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	6	193	0	1	138	27	0	0	0	88	0	31
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	6	193	0	1	138	27	0	0	0	88	0	31
Entry Volume	199			166			0			119		
Entry Lane Volume (adj)	199			166			0			119		
Exiting Flow Rates	169			281			1			33		
Conflicting Flow	89			6			287			139		
Entry Capacity	1245			1327			1071			1199		
v/c ratio	0.16			0.13			0.00			0.10		
Delay	8.4			3.1			8.4			8.3		
LOS												
95th Percentile Queue (veh)	0.6			0.4			0.0			0.3		
Intersection Delay		7.1										
Intersection v/c		0.13										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	1	0	2	4	0	2	23	75	24	3	19	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	1	0	2	4	0	2	23	75	24	3	19	1
Entry Volume	3			6			122			23		
Entry Lane Volume (adj)	3			6			122			23		
Exiting Flow Rates	24			27			25			78		
Conflicting Flow	26			99			4			27		
Entry Capacity	1307			1236			1329			1306		
v/c ratio	0.00			0.00			0.09			0.02		
Delay	7.8			2.9			8.0			7.8		
LOS												
95th Percentile Queue (veh)	0.0			0.0			0.3			0.1		
Intersection Delay		6.6										
Intersection v/c		0.08										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	6	0	34	6	0	4	0	33	9	4	84	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	6	0	34	6	0	4	0	33	9	4	84	1
Entry Volume	40			10			42			89		
Entry Lane Volume (adj)	40			10			42			89		
Exiting Flow Rates	1			13			124			43		
Conflicting Flow	94			39			10			6		
Entry Capacity	1241			1294			1323			1327		
v/c ratio	0.03			0.01			0.03			0.07		
Delay	8.0			2.8			7.8			7.9		
LOS												
95th Percentile Queue (veh)	0.1			0.0			0.1			0.2		
Intersection Delay		6.6										
Intersection v/c		0.05										

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound						
	Left	Through	Right	U Turn	Through	Right	Left	Through	Right	Left	Through	Right				
Volume	42	109	0	15	88	80	0	0	0	17	0	9				
% HV	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%				
Demand Volume	42	109	0	15	89	80	0	0	0	17	0	9				
Entry Volume	151			183			0			26						
Entry Lane Volume (adj)	151			184			0			26						
Exiting Flow Rates	98			126			15			122						
Conflicting Flow	32			42			168			104						
Entry Capacity	1301			1291			1172			1231						
v/c ratio	0.12			0.14			0.00			0.02						
Delay	8.1			3.2			8.1			8.0						
LOS																
95th Percentile Queue (veh)	0.4			0.5			0.0			0.1						
<table border="1"> <tr> <td>Intersection Delay</td> <td>6.9</td> </tr> <tr> <td>Intersection v/c</td> <td>0.12</td> </tr> </table>													Intersection Delay	6.9	Intersection v/c	0.12
Intersection Delay	6.9															
Intersection v/c	0.12															

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	15	193	0	22	164	27	0	0	0	90	0	35
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	15	193	0	22	164	27	0	0	0	90	0	35
Entry Volume	208			213			0			125		
Entry Lane Volume (adj)	208			213			0			125		
Exiting Flow Rates	199			283			22			42		
Conflicting Flow	112			15			298			186		
Entry Capacity	1224			1318			1062			1156		
v/c ratio	0.17			0.16			0.00			0.11		
Delay	8.5			3.3			8.4			8.5		
LOS												
95th Percentile Queue (veh)	0.6			0.6			0.0			0.4		
Intersection Delay		7.2										
Intersection v/c		0.15										

HCM Signalized Intersection Capacity Analysis

1: Beltline/MLK Pkwy & Game Farm Rd

05/30/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↷	↷	↶	↷
Traffic Volume (vph)	58	763	460	186	113	25
Future Volume (vph)	58	763	460	186	113	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1805	3610	3610	1615	1805	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1805	3610	3610	1615	1805	1615
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	65	857	517	209	127	28
RTOR Reduction (vph)	0	0	0	129	0	21
Lane Group Flow (vph)	65	857	517	80	127	7
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	8.3	31.3	17.6	17.6	9.1	9.1
Effective Green, g (s)	9.7	32.7	19.0	19.0	10.5	10.5
Actuated g/C Ratio	0.19	0.66	0.38	0.38	0.21	0.21
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	351	2370	1377	616	380	340
v/s Ratio Prot	0.04	c0.24	0.14		c0.07	
v/s Ratio Perm				0.05		0.00
v/c Ratio	0.19	0.36	0.38	0.13	0.33	0.02
Uniform Delay, d1	16.7	3.8	11.1	10.0	16.7	15.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	0.2	0.1	0.4	0.0
Delay (s)	16.9	4.0	11.4	10.1	17.1	15.6
Level of Service	B	A	B	B	B	B
Approach Delay (s)		4.9	11.0		16.8	
Approach LOS		A	B		B	

Intersection Summary

HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	49.8	Sum of lost time (s)	10.6
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

05/30/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↷	↶	↶	↶	
Traffic Volume (veh/h)	58	763	460	186	113	25	
Future Volume (veh/h)	58	763	460	186	113	25	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	65	857	517	209	127	0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	175	2758	2157	962	219		
Arrive On Green	0.10	0.76	0.60	0.60	0.12	0.00	
Sat Flow, veh/h	1810	3705	3705	1610	1810	1610	
Grp Volume(v), veh/h	65	857	517	209	127	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1810	1610	
Q Serve(g_s), s	1.9	4.2	3.9	3.4	3.8	0.0	
Cycle Q Clear(g_c), s	1.9	4.2	3.9	3.4	3.8	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	175	2758	2157	962	219		
V/C Ratio(X)	0.37	0.31	0.24	0.22	0.58		
Avail Cap(c_a), veh/h	2273	20975	16188	7220	3896		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	24.2	2.1	5.4	5.3	23.8	0.0	
Incr Delay (d2), s/veh	1.0	0.1	0.1	0.2	1.8	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.9	0.7	1.7	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	25.2	2.2	5.5	5.5	25.6	0.0	
LnGrp LOS	C	A	A	A	C		
Approach Vol, veh/h		922	726		127	A	
Approach Delay, s/veh		3.8	5.5		25.6		
Approach LOS		A	A		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				47.8	9.5	9.5	38.2
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 3.3E2	122.0	* 71	* 2.6E2
Max Q Clear Time (g_c+I1), s				6.2	5.8	3.9	5.9
Green Ext Time (p_c), s				36.2	0.6	0.2	19.8

Intersection Summary

HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	6.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶		↷	↶	↷	↷
Traffic Vol, veh/h	31	79	32	9	134	98
Future Vol, veh/h	31	79	32	9	134	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	0	13	0	2	0
Mvmt Flow	34	88	36	10	149	109

































Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	122	0	160 78
Stage 1	-	-	-	-	78 -
Stage 2	-	-	-	-	82 -
Critical Hdwy	-	-	4.23	-	6.42 6.2
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.317	-	3.518 3.3
Pot Cap-1 Maneuver	-	-	1400	-	831 988
Stage 1	-	-	-	-	945 -
Stage 2	-	-	-	-	941 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1400	-	809 988
Mov Cap-2 Maneuver	-	-	-	-	809 -
Stage 1	-	-	-	-	945 -
Stage 2	-	-	-	-	917 -

Approach	EB	WB	NB
HCM Control Delay, s	0	6	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	809	988	-	-	1400	-
HCM Lane V/C Ratio	0.184	0.11	-	-	0.025	-
HCM Control Delay (s)	10.5	9.1	-	-	7.6	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.7	0.4	-	-	0.1	-

HCM Signalized Intersection Capacity Analysis
10: Beltline & Gateway

05/30/2023

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	  	 		 	  		 	 		 	 
Traffic Volume (vph)	442	756	502	2	37	372	117	341	209	52	121	150
Future Volume (vph)	442	756	502	2	37	372	117	341	209	52	121	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00		1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.96		1.00	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)	3467	5136	2787		1805	4939		3433	1821		1805	1845
Flt Permitted	0.95	1.00	1.00		0.15	1.00		0.95	1.00		0.95	1.00
Satd. Flow (perm)	3467	5136	2787		276	4939		3433	1821		1805	1845
Peak-hour factor, PHF	0.93	0.93	0.93	0.90	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	475	813	540	2	40	400	126	367	225	56	130	161
RTOR Reduction (vph)	0	0	401	0	0	49	0	0	8	0	0	0
Lane Group Flow (vph)	475	813	139	0	42	477	0	367	273	0	130	161
Heavy Vehicles (%)	1%	1%	2%	0%	0%	1%	2%	2%	1%	2%	0%	3%
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3								
Actuated Green, G (s)	17.9	24.3	24.3		26.1	32.5		14.2	19.3		10.7	15.8
Effective Green, g (s)	19.3	25.7	25.7		27.5	33.9		14.7	19.8		11.2	16.3
Actuated g/C Ratio	0.19	0.26	0.26		0.28	0.34		0.15	0.20		0.11	0.16
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5		4.5	4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	670	1322	717		76	1677		505	361		202	301
v/s Ratio Prot	c0.14	c0.16				0.10		c0.11	c0.15		0.07	0.09
v/s Ratio Perm			0.05		c0.15							
v/c Ratio	0.71	0.61	0.19		0.55	0.28		0.73	0.76		0.64	0.53
Uniform Delay, d1	37.6	32.7	29.0		30.9	24.1		40.6	37.7		42.4	38.3
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	3.2	1.0	0.2		6.8	0.1		4.9	8.3		6.1	1.4
Delay (s)	40.8	33.7	29.1		37.7	24.2		45.5	46.1		48.5	39.7
Level of Service	D	C	C		D	C		D	D		D	D
Approach Delay (s)		34.2			25.2			45.7				40.1
Approach LOS		C			C			D				D
Intersection Summary												
HCM 2000 Control Delay			35.7		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			99.8		Sum of lost time (s)					15.6		
Intersection Capacity Utilization			56.6%		ICU Level of Service					B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway




















05/30/2023

Movement	SBR
Lane Configurations	FF
Traffic Volume (vph)	203
Future Volume (vph)	203
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	0.88
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	2707
Flt Permitted	1.00
Satd. Flow (perm)	2707
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	218
RTOR Reduction (vph)	182
Lane Group Flow (vph)	36
Heavy Vehicles (%)	5%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	15.8
Effective Green, g (s)	16.3
Actuated g/C Ratio	0.16
Clearance Time (s)	4.5
Vehicle Extension (s)	2.5
Lane Grp Cap (vph)	442
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.08
Uniform Delay, d1	35.4
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	35.5
Level of Service	D
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
17: Gateway & Game Farm

05/30/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	3	20	35	2	53	2	31	549	177	62	417
Future Volume (vph)	0	3	20	35	2	53	2	31	549	177	62	417
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.96		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1514		1787	1594			1755	3401		1805	3424
Flt Permitted		1.00		0.66	1.00			0.49	1.00		0.29	1.00
Satd. Flow (perm)		1514		1234	1594			900	3401		556	3424
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	22	38	2	58	2	34	597	192	67	453
RTOR Reduction (vph)	0	21	0	0	48	0	0	0	27	0	0	1
Lane Group Flow (vph)	0	4	0	38	12	0	0	36	762	0	67	459
Heavy Vehicles (%)	0%	0%	12%	1%	0%	2%	0%	3%	3%	0%	0%	5%
Turn Type		NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		2.1		8.1	8.1			26.9	25.0		29.5	26.3
Effective Green, g (s)		2.1		8.6	8.6			27.9	25.5		30.5	26.8
Actuated g/C Ratio		0.04		0.17	0.17			0.56	0.51		0.61	0.54
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		63		240	275			545	1741		433	1842
v/s Ratio Prot		0.00		c0.01	0.01			0.00	c0.22		c0.01	0.13
v/s Ratio Perm				c0.02				0.03			0.08	
v/c Ratio		0.06		0.16	0.04			0.07	0.44		0.15	0.25
Uniform Delay, d1		22.9		17.5	17.2			4.9	7.6		4.1	6.1
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3		0.2	0.0			0.0	0.2		0.1	0.1
Delay (s)		23.2		17.7	17.2			5.0	7.9		4.2	6.2
Level of Service		C		B	B			A	A		A	A
Approach Delay (s)		23.2			17.4				7.8			6.0
Approach LOS		C			B				A			A
Intersection Summary												
HCM 2000 Control Delay			8.0			HCM 2000 Level of Service			A			
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			49.8			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			42.9%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/30/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	7
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	17%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis

1: Beltline/MLK Pkwy & Game Farm Rd

05/30/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↷	↷	↶	↷
Traffic Volume (vph)	60	794	478	193	118	26
Future Volume (vph)	60	794	478	193	118	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1805	3610	3610	1615	1805	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1805	3610	3610	1615	1805	1615
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	67	892	537	217	133	29
RTOR Reduction (vph)	0	0	0	133	0	20
Lane Group Flow (vph)	67	892	537	84	133	9
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	8.5	32.5	18.6	18.6	9.6	9.6
Effective Green, g (s)	9.9	33.9	20.0	20.0	11.0	11.0
Actuated g/C Ratio	0.19	0.66	0.39	0.39	0.21	0.21
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	346	2376	1401	627	385	344
v/s Ratio Prot	0.04	c0.25	0.15		c0.07	
v/s Ratio Perm				0.05		0.01
v/c Ratio	0.19	0.38	0.38	0.13	0.35	0.03
Uniform Delay, d1	17.5	4.0	11.3	10.2	17.2	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	0.2	0.1	0.4	0.0
Delay (s)	17.7	4.1	11.6	10.3	17.6	16.0
Level of Service	B	A	B	B	B	B
Approach Delay (s)		5.1	11.2		17.3	
Approach LOS		A	B		B	

Intersection Summary

HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	51.5	Sum of lost time (s)	10.6
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

05/30/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↷	↶	↶	↶	
Traffic Volume (veh/h)	60	794	478	193	118	26	
Future Volume (veh/h)	60	794	478	193	118	26	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	67	892	537	217	133	0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	170	2779	2206	984	222		
Arrive On Green	0.09	0.77	0.61	0.61	0.12	0.00	
Sat Flow, veh/h	1810	3705	3705	1610	1810	1610	
Grp Volume(v), veh/h	67	892	537	217	133	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1810	1610	
Q Serve(g_s), s	2.1	4.6	4.2	3.7	4.3	0.0	
Cycle Q Clear(g_c), s	2.1	4.6	4.2	3.7	4.3	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	170	2779	2206	984	222		
V/C Ratio(X)	0.39	0.32	0.24	0.22	0.60		
Avail Cap(c_a), veh/h	2146	19529	15013	6696	3627		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	26.2	2.2	5.5	5.4	25.6	0.0	
Incr Delay (d2), s/veh	1.1	0.1	0.1	0.2	1.9	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.9	0.2	1.0	0.8	1.9	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	27.4	2.3	5.5	5.5	27.5	0.0	
LnGrp LOS	C	A	A	A	C		
Approach Vol, veh/h		959	754		133	A	
Approach Delay, s/veh		4.0	5.5		27.5		
Approach LOS		A	A		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				51.4	10.2	9.8	41.6
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 3.3E2	122.0	* 72	* 2.5E2
Max Q Clear Time (g_c+I1), s				6.6	6.3	4.1	6.2
Green Ext Time (p_c), s				39.3	0.6	0.2	21.0

Intersection Summary

HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	6.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	32	82	33	9	139	102
Future Vol, veh/h	32	82	33	9	139	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	0	13	0	2	0
Mvmt Flow	36	91	37	10	154	113































Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	127	0	166
Stage 1	-	-	-	-	82
Stage 2	-	-	-	-	84
Critical Hdwy	-	-	4.23	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.317	-	3.518
Pot Cap-1 Maneuver	-	-	1394	-	824
Stage 1	-	-	-	-	941
Stage 2	-	-	-	-	939
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1394	-	802
Mov Cap-2 Maneuver	-	-	-	-	802
Stage 1	-	-	-	-	941
Stage 2	-	-	-	-	914

Approach	EB	WB	NB
HCM Control Delay, s	0	6	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	802	983	-	-	1394	-
HCM Lane V/C Ratio	0.193	0.115	-	-	0.026	-
HCM Control Delay (s)	10.6	9.1	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.7	0.4	-	-	0.1	-

HCM Signalized Intersection Capacity Analysis
10: Beltline & Gateway

05/30/2023

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	  	 		 	  		 			 	
Traffic Volume (vph)	460	786	522	2	38	387	122	355	217	54	126	156
Future Volume (vph)	460	786	522	2	38	387	122	355	217	54	126	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00		1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.96		1.00	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)	3467	5136	2787		1805	4939		3433	1821		1805	1845
Flt Permitted	0.95	1.00	1.00		0.15	1.00		0.95	1.00		0.95	1.00
Satd. Flow (perm)	3467	5136	2787		286	4939		3433	1821		1805	1845
Peak-hour factor, PHF	0.93	0.93	0.93	0.90	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	495	845	561	2	41	416	131	382	233	58	135	168
RTOR Reduction (vph)	0	0	413	0	0	48	0	0	8	0	0	0
Lane Group Flow (vph)	495	845	148	0	43	499	0	382	283	0	135	168
Heavy Vehicles (%)	1%	1%	2%	0%	0%	1%	2%	2%	1%	2%	0%	3%
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3								
Actuated Green, G (s)	18.7	25.1	25.1		25.2	31.6		14.5	20.0		10.9	16.4
Effective Green, g (s)	20.1	26.5	26.5		26.6	33.0		15.0	20.5		11.4	16.9
Actuated g/C Ratio	0.20	0.26	0.26		0.26	0.33		0.15	0.20		0.11	0.17
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5		4.5	4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	692	1352	734		75	1620		511	371		204	309
v/s Ratio Prot	c0.14	c0.16				0.10		c0.11	c0.16		0.07	0.09
v/s Ratio Perm			0.05		c0.15							
v/c Ratio	0.72	0.62	0.20		0.57	0.31		0.75	0.76		0.66	0.54
Uniform Delay, d1	37.6	32.7	28.8		32.1	25.3		41.0	37.8		42.8	38.3
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	3.3	1.0	0.2		8.4	0.1		5.6	8.6		7.1	1.5
Delay (s)	40.9	33.7	29.0		40.5	25.4		46.6	46.4		49.8	39.9
Level of Service	D	C	C		D	C		D	D		D	D
Approach Delay (s)		34.2			26.5			46.5				40.5
Approach LOS		C			C			D				D
Intersection Summary												
HCM 2000 Control Delay			36.1		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			100.6		Sum of lost time (s)					15.6		
Intersection Capacity Utilization			58.3%		ICU Level of Service					B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway




















05/30/2023

Movement	SBR
Lane Configurations	FF
Traffic Volume (vph)	211
Future Volume (vph)	211
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	0.88
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	2707
Flt Permitted	1.00
Satd. Flow (perm)	2707
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	227
RTOR Reduction (vph)	189
Lane Group Flow (vph)	38
Heavy Vehicles (%)	5%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	16.4
Effective Green, g (s)	16.9
Actuated g/C Ratio	0.17
Clearance Time (s)	4.5
Vehicle Extension (s)	2.5
Lane Grp Cap (vph)	454
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.08
Uniform Delay, d1	35.3
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	35.4
Level of Service	D
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/30/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	3	21	36	2	55	2	32	571	184	64	434
Future Volume (vph)	0	3	21	36	2	55	2	32	571	184	64	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.96		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1513		1752	1593			1755	3401		1805	3425
Flt Permitted		1.00		0.66	1.00			0.48	1.00		0.28	1.00
Satd. Flow (perm)		1513		1210	1593			884	3401		531	3425
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	23	39	2	60	2	35	621	200	70	472
RTOR Reduction (vph)	0	22	0	0	50	0	0	0	27	0	0	1
Lane Group Flow (vph)	0	4	0	39	12	0	0	37	794	0	70	478
Heavy Vehicles (%)	0%	0%	12%	3%	0%	2%	0%	3%	3%	0%	0%	5%
Turn Type		NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		2.1		8.2	8.2			27.4	25.5		30.0	26.8
Effective Green, g (s)		2.1		8.7	8.7			28.4	26.0		31.0	27.3
Actuated g/C Ratio		0.04		0.17	0.17			0.56	0.52		0.62	0.54
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		63		236	274			539	1754		420	1855
v/s Ratio Prot		0.00		c0.01	0.01			0.00	c0.23		c0.01	0.14
v/s Ratio Perm				c0.02				0.04			0.09	
v/c Ratio		0.06		0.17	0.05			0.07	0.45		0.17	0.26
Uniform Delay, d1		23.2		17.7	17.4			4.9	7.7		4.2	6.2
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3		0.2	0.0			0.0	0.3		0.1	0.1
Delay (s)		23.5		17.9	17.4			4.9	8.0		4.3	6.3
Level of Service		C		B	B			A	A		A	A
Approach Delay (s)		23.5			17.6				7.8			6.0
Approach LOS		C			B				A			A
Intersection Summary												
HCM 2000 Control Delay			8.1		HCM 2000 Level of Service				A			
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			50.4	Sum of lost time (s)				16.0				
Intersection Capacity Utilization			43.9%	ICU Level of Service				A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/30/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	7
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	17%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis

1: Beltline/MLK Pkwy & Game Farm Rd

05/30/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↷	↷	↶	↷
Traffic Volume (vph)	80	794	478	208	121	31
Future Volume (vph)	80	794	478	208	121	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1805	3610	3610	1615	1805	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1805	3610	3610	1615	1805	1615
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	90	892	537	234	136	35
RTOR Reduction (vph)	0	0	0	139	0	24
Lane Group Flow (vph)	90	892	537	95	136	11
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	10.1	34.9	19.4	19.4	10.4	10.4
Effective Green, g (s)	11.5	36.3	20.8	20.8	11.8	11.8
Actuated g/C Ratio	0.21	0.66	0.38	0.38	0.22	0.22
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	379	2395	1372	614	389	348
v/s Ratio Prot	0.05	c0.25	0.15		c0.08	
v/s Ratio Perm				0.06		0.01
v/c Ratio	0.24	0.37	0.39	0.16	0.35	0.03
Uniform Delay, d1	18.0	4.1	12.3	11.2	18.2	16.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	0.3	0.2	0.4	0.0
Delay (s)	18.2	4.2	12.6	11.3	18.6	17.0
Level of Service	B	A	B	B	B	B
Approach Delay (s)		5.5	12.2		18.3	
Approach LOS		A	B		B	

Intersection Summary

HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	54.7	Sum of lost time (s)	10.6
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

05/30/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↷	↶	↶	↶	
Traffic Volume (veh/h)	80	794	478	208	121	31	
Future Volume (veh/h)	80	794	478	208	121	31	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	90	892	537	234	136	0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	194	2773	2153	960	226		
Arrive On Green	0.11	0.77	0.60	0.60	0.12	0.00	
Sat Flow, veh/h	1810	3705	3705	1610	1810	1610	
Grp Volume(v), veh/h	90	892	537	234	136	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1810	1610	
Q Serve(g_s), s	2.9	4.7	4.4	4.2	4.4	0.0	
Cycle Q Clear(g_c), s	2.9	4.7	4.4	4.2	4.4	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	194	2773	2153	960	226		
V/C Ratio(X)	0.47	0.32	0.25	0.24	0.60		
Avail Cap(c_a), veh/h	2666	19407	13854	6179	3645		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	25.9	2.2	5.9	5.9	25.6	0.0	
Incr Delay (d2), s/veh	1.3	0.1	0.1	0.2	1.9	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	0.3	1.1	1.0	1.9	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	27.2	2.3	6.0	6.1	27.5	0.0	
LnGrp LOS	C	A	A	A	C		
Approach Vol, veh/h		982	771		136	A	
Approach Delay, s/veh		4.6	6.0		27.5		
Approach LOS		A	A		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				51.4	10.3	10.6	40.8
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 3.3E2	123.0	* 90	* 2.4E2
Max Q Clear Time (g_c+I1), s				6.7	6.4	4.9	6.4
Green Ext Time (p_c), s				39.3	0.6	0.3	21.5

Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	6.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	40	90	33	11	174	102
Future Vol, veh/h	40	90	33	11	174	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	0	13	0	0	2
Mvmt Flow	44	100	37	12	193	113
































Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	144	0	180
Stage 1	-	-	-	-	94
Stage 2	-	-	-	-	86
Critical Hdwy	-	-	4.23	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.317	-	3.5
Pot Cap-1 Maneuver	-	-	1374	-	814
Stage 1	-	-	-	-	935
Stage 2	-	-	-	-	942
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1374	-	792
Mov Cap-2 Maneuver	-	-	-	-	792
Stage 1	-	-	-	-	935
Stage 2	-	-	-	-	917

Approach	EB	WB	NB
HCM Control Delay, s	0	5.8	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	792	963	-	-	1374	-
HCM Lane V/C Ratio	0.244	0.118	-	-	0.027	-
HCM Control Delay (s)	11	9.2	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1	0.4	-	-	0.1	-































HCM Signalized Intersection Capacity Analysis
10: Beltline & Gateway

05/30/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  	 		  		 				 	 
Traffic Volume (vph)	467	796	522	40	390	122	355	224	64	126	158	214
Future Volume (vph)	467	796	522	40	390	122	355	224	64	126	158	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8	3.8	3.8		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.88	1.00	0.91		0.97	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3467	5136	2787	1805	4941		3433	1814		1805	1845	2707
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3467	5136	2787	1805	4941		3433	1814		1805	1845	2707
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	502	856	561	43	419	131	382	241	69	135	170	230
RTOR Reduction (vph)	0	0	346	0	44	0	0	10	0	0	0	185
Lane Group Flow (vph)	502	856	215	43	506	0	382	300	0	135	170	45
Heavy Vehicles (%)	1%	1%	2%	0%	1%	2%	2%	1%	2%	0%	3%	5%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	17.8	31.9	31.9	3.9	18.0		15.0	19.8		11.8	16.6	16.6
Effective Green, g (s)	19.2	33.3	33.3	5.3	19.4		15.5	20.3		12.3	17.1	17.1
Actuated g/C Ratio	0.22	0.38	0.38	0.06	0.22		0.18	0.23		0.14	0.20	0.20
Clearance Time (s)	5.2	5.2	5.2	5.2	5.2		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	4.0	4.0	2.5	4.0		2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	766	1970	1069	110	1104		613	424		255	363	533
v/s Ratio Prot	c0.14	c0.17		0.02	0.10		c0.11	c0.17		0.07	0.09	
v/s Ratio Perm			0.08									0.02
v/c Ratio	0.66	0.43	0.20	0.39	0.46		0.62	0.71		0.53	0.47	0.09
Uniform Delay, d1	30.8	19.8	17.9	39.2	29.2		33.0	30.5		34.6	30.8	28.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.8	0.2	0.1	1.7	0.4		1.7	5.0		1.5	0.7	0.1
Delay (s)	32.6	20.0	18.0	40.9	29.6		34.7	35.5		36.1	31.5	28.5
Level of Service	C	B	B	D	C		C	D		D	C	C
Approach Delay (s)		22.7			30.4			35.0			31.4	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			27.4				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			86.8				Sum of lost time (s)			15.6		
Intersection Capacity Utilization			59.6%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												




















HCM 6th Signalized Intersection Summary
10: Beltline & Gateway

05/30/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  	 		  		 					 
Traffic Volume (veh/h)	467	796	522	40	390	122	355	224	64	126	158	214
Future Volume (veh/h)	467	796	522	40	390	122	355	224	64	126	158	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1870	1900	1885	1870	1870	1885	1870	1900	1856	1826
Adj Flow Rate, veh/h	502	856	561	43	419	131	382	241	69	135	170	230
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	2	0	1	2	2	1	2	0	3	5
Cap, veh/h	704	2243	1216	89	1110	334	534	297	85	186	295	433
Arrive On Green	0.20	0.44	0.44	0.05	0.28	0.26	0.15	0.21	0.20	0.10	0.16	0.16
Sat Flow, veh/h	3483	5147	2790	1810	3924	1180	3456	1409	403	1810	1856	2723
Grp Volume(v), veh/h	502	856	561	43	364	186	382	0	310	135	170	230
Grp Sat Flow(s),veh/h/ln	1742	1716	1395	1810	1716	1673	1728	0	1813	1810	1856	1362
Q Serve(g_s), s	10.4	8.7	11.0	1.8	6.6	7.0	8.1	0.0	12.6	5.6	6.6	6.0
Cycle Q Clear(g_c), s	10.4	8.7	11.0	1.8	6.6	7.0	8.1	0.0	12.6	5.6	6.6	6.0
Prop In Lane	1.00		1.00	1.00		0.71	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	704	2243	1216	89	971	473	534	0	382	186	295	433
V/C Ratio(X)	0.71	0.38	0.46	0.48	0.38	0.39	0.72	0.00	0.81	0.72	0.58	0.53
Avail Cap(c_a), veh/h	1224	2539	1376	215	971	473	982	0	890	444	839	1231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	14.8	15.4	35.8	22.3	22.8	31.1	0.0	29.2	33.7	30.1	29.9
Incr Delay (d2), s/veh	1.0	0.2	0.4	3.0	0.3	0.8	1.3	0.0	3.2	4.0	1.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	3.0	3.1	0.8	2.5	2.6	3.3	0.0	5.5	2.6	2.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	14.9	15.8	38.8	22.6	23.6	32.5	0.0	32.3	37.6	31.5	30.7
LnGrp LOS	C	B	B	D	C	C	C	A	C	D	C	C
Approach Vol, veh/h		1919			593			692			535	
Approach Delay, s/veh		19.1			24.1			32.4			32.7	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	20.3	7.6	37.5	16.0	16.3	19.4	25.7				
Change Period (Y+Rc), s	4.5	4.5	* 5.2	* 5.2	4.5	4.5	* 5.2	* 5.2				
Max Green Setting (Gmax), s	18.5	37.5	* 7.8	* 37	21.5	34.5	* 26	* 19				
Max Q Clear Time (g_c+I1), s	7.6	14.6	3.8	13.0	10.1	8.6	12.4	9.0				
Green Ext Time (p_c), s	0.3	1.2	0.0	19.3	1.3	2.4	1.8	5.4				
Intersection Summary												
HCM 6th Ctrl Delay			24.3									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM Signalized Intersection Capacity Analysis
17: Gateway & Game Farm

05/30/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	3	21	41	2	58	2	32	571	198	74	434
Future Volume (vph)	0	3	21	41	2	58	2	32	571	198	74	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.96		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1513		1752	1593			1755	3395		1805	3425
Flt Permitted		1.00		0.69	1.00			0.48	1.00		0.27	1.00
Satd. Flow (perm)		1513		1272	1593			884	3395		515	3425
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	23	45	2	63	2	35	621	215	80	472
RTOR Reduction (vph)	0	22	0	0	52	0	0	0	30	0	0	1
Lane Group Flow (vph)	0	4	0	45	13	0	0	37	806	0	80	478
Heavy Vehicles (%)	0%	0%	12%	3%	0%	2%	0%	3%	3%	0%	0%	5%
Turn Type		NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		1.8		9.0	9.0			28.3	26.5		31.1	27.9
Effective Green, g (s)		1.8		9.5	9.5			29.3	27.0		32.1	28.4
Actuated g/C Ratio		0.03		0.18	0.18			0.56	0.52		0.61	0.54
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		52		265	289			534	1756		408	1863
v/s Ratio Prot		0.00		c0.01	0.01			0.00	c0.24		c0.01	0.14
v/s Ratio Perm				c0.02				0.04			0.11	
v/c Ratio		0.07		0.17	0.05			0.07	0.46		0.20	0.26
Uniform Delay, d1		24.4		18.0	17.6			5.1	8.0		4.4	6.3
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.4		0.2	0.0			0.0	0.3		0.2	0.1
Delay (s)		24.8		18.2	17.7			5.2	8.2		4.6	6.4
Level of Service		C		B	B			A	A		A	A
Approach Delay (s)		24.8			17.9				8.1			6.1
Approach LOS		C			B				A			A
Intersection Summary												
HCM 2000 Control Delay			8.4			HCM 2000 Level of Service			A			
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			52.2			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			45.1%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/30/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	7
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	17%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	130	149	37	0	20
Future Vol, veh/h	0	130	149	37	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	144	166	41	0	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	860
HCM Lane V/C Ratio	-	-	-	0.026
HCM Control Delay (s)	-	-	-	9.3
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0.1

HCM Signalized Intersection Capacity Analysis

1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↵	↑↑	↑↑	↵	↵	↵
Traffic Volume (vph)	66	870	524	212	129	29
Future Volume (vph)	66	870	524	212	129	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1805	3610	3610	1615	1805	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1805	3610	3610	1615	1805	1615
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	74	978	589	238	145	33
RTOR Reduction (vph)	0	0	0	137	0	20
Lane Group Flow (vph)	74	978	589	101	145	13
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	9.3	35.9	21.2	21.2	10.8	10.8
Effective Green, g (s)	10.7	37.3	22.6	22.6	12.2	12.2
Actuated g/C Ratio	0.19	0.66	0.40	0.40	0.22	0.22
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	344	2400	1454	650	392	351
v/s Ratio Prot	0.04	c0.27	0.16		c0.08	
v/s Ratio Perm				0.06		0.01
v/c Ratio	0.22	0.41	0.41	0.16	0.37	0.04
Uniform Delay, d1	19.2	4.3	12.0	10.7	18.7	17.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.2	0.3	0.2	0.4	0.0
Delay (s)	19.4	4.5	12.2	10.8	19.1	17.3
Level of Service	B	A	B	B	B	B
Approach Delay (s)		5.5	11.8		18.8	
Approach LOS		A	B		B	

Intersection Summary

HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	56.1	Sum of lost time (s)	10.6
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖	↕↕	↕↕	↗	↖	↗	
Traffic Volume (veh/h)	66	870	524	212	129	29	
Future Volume (veh/h)	66	870	524	212	129	29	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	74	978	589	238	145	0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	160	2833	2316	1033	227		
Arrive On Green	0.09	0.78	0.64	0.64	0.13	0.00	
Sat Flow, veh/h	1810	3705	3705	1610	1810	1610	
Grp Volume(v), veh/h	74	978	589	238	145	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1810	1610	
Q Serve(g_s), s	2.9	5.9	5.1	4.6	5.6	0.0	
Cycle Q Clear(g_c), s	2.9	5.9	5.1	4.6	5.6	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	160	2833	2316	1033	227		
V/C Ratio(X)	0.46	0.35	0.25	0.23	0.64		
Avail Cap(c_a), veh/h	1775	16424	12687	5659	3017		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	31.8	2.3	5.6	5.5	30.5	0.0	
Incr Delay (d2), s/veh	1.5	0.1	0.1	0.2	2.2	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	0.6	1.3	1.1	2.5	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	33.3	2.4	5.7	5.7	32.7	0.0	
LnGrp LOS	C	A	A	A	C		
Approach Vol, veh/h		1052	827		145	A	
Approach Delay, s/veh		4.6	5.7		32.7		
Approach LOS		A	A		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				61.6	11.8	10.5	51.1
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 3.3E2	121.0	* 71	* 2.6E2
Max Q Clear Time (g_c+I1), s				7.9	7.6	4.9	7.1
Green Ext Time (p_c), s				48.3	0.6	0.3	24.6

Intersection Summary

HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	6.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶		↷	↶	↷	↷
Traffic Vol, veh/h	35	90	36	10	153	112
Future Vol, veh/h	35	90	36	10	153	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	0	13	0	0	2
Mvmt Flow	39	100	40	11	170	124






















Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	139	0	180 89
Stage 1	-	-	-	-	89 -
Stage 2	-	-	-	-	91 -
Critical Hdwy	-	-	4.23	-	6.4 6.22
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.317	-	3.5 3.318
Pot Cap-1 Maneuver	-	-	1380	-	814 969
Stage 1	-	-	-	-	940 -
Stage 2	-	-	-	-	938 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1380	-	790 969
Mov Cap-2 Maneuver	-	-	-	-	790 -
Stage 1	-	-	-	-	940 -
Stage 2	-	-	-	-	911 -

Approach	EB	WB	NB
HCM Control Delay, s	0	6	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	790	969	-	-	1380	-
HCM Lane V/C Ratio	0.215	0.128	-	-	0.029	-
HCM Control Delay (s)	10.8	9.3	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.8	0.4	-	-	0.1	-

HCM Signalized Intersection Capacity Analysis
10: Beltline & Gateway

05/31/2023

													
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	
Lane Configurations													
Traffic Volume (vph)	504	862	572	2	42	424	133	389	238	59	138	171	
Future Volume (vph)	504	862	572	2	42	424	133	389	238	59	138	171	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00		1.00	1.00	
Frt	1.00	1.00	0.85		1.00	0.96		1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3502	5187	2842		1805	5001		3502	1843		1805	1900	
Flt Permitted	0.95	1.00	1.00		0.14	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3502	5187	2842		259	5001		3502	1843		1805	1900	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	560	958	636	2	47	471	148	432	264	66	153	190	
RTOR Reduction (vph)	0	0	473	0	0	48	0	0	8	0	0	0	
Lane Group Flow (vph)	560	958	163	0	49	571	0	432	322	0	153	190	
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4			3	8		5	2		1	6	
Permitted Phases			4	3									
Actuated Green, G (s)	21.3	25.9	25.9		27.9	32.5		16.2	22.3		11.1	17.2	
Effective Green, g (s)	22.7	27.3	27.3		29.3	33.9		16.7	22.8		11.6	17.7	
Actuated g/C Ratio	0.21	0.26	0.26		0.27	0.32		0.16	0.21		0.11	0.17	
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	745	1328	727		71	1590		548	394		196	315	
v/s Ratio Prot	c0.16	c0.18				0.11		c0.12	c0.17		0.08	0.10	
v/s Ratio Perm			0.06		c0.19								
v/c Ratio	0.75	0.72	0.22		0.69	0.36		0.79	0.82		0.78	0.60	
Uniform Delay, d1	39.3	36.2	31.3		34.6	28.0		43.2	39.9		46.3	41.2	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.1	2.1	0.2		23.3	0.2		7.1	12.1		17.4	2.7	
Delay (s)	43.4	38.3	31.5		57.9	28.2		50.4	52.0		63.7	43.9	
Level of Service	D	D	C		E	C		D	D		E	D	
Approach Delay (s)		37.6			30.4			51.1				46.3	
Approach LOS		D			C			D				D	
Intersection Summary													
HCM 2000 Control Delay			40.2									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.77										
Actuated Cycle Length (s)			106.6									Sum of lost time (s)	15.6
Intersection Capacity Utilization			62.6%									ICU Level of Service	B
Analysis Period (min)			15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

05/31/2023

Movement	SBR
Lane Configurations	FF
Traffic Volume (vph)	231
Future Volume (vph)	231
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	0.88
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	2842
Flt Permitted	1.00
Satd. Flow (perm)	2842
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	257
RTOR Reduction (vph)	214
Lane Group Flow (vph)	43
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	17.2
Effective Green, g (s)	17.7
Actuated g/C Ratio	0.17
Clearance Time (s)	4.5
Vehicle Extension (s)	2.5
Lane Grp Cap (vph)	471
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.09
Uniform Delay, d1	37.6
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	37.7
Level of Service	D
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
17: Gateway & Game Farm

05/31/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕		↖	↗			↖	↗		↖	↗
Traffic Volume (vph)	0	3	23	40	2	60	2	35	626	202	71	475
Future Volume (vph)	0	3	23	40	2	60	2	35	626	202	71	475
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.96		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1670		1805	1623			1805	3478		1805	3602
Flt Permitted		1.00		0.69	1.00			0.45	1.00		0.24	1.00
Satd. Flow (perm)		1670		1310	1623			860	3478		458	3602
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	3	26	44	2	67	2	39	696	224	79	528
RTOR Reduction (vph)	0	25	0	0	55	0	0	0	26	0	0	1
Lane Group Flow (vph)	0	4	0	44	14	0	0	41	894	0	79	535
Turn Type		NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		1.8		9.0	9.0			29.7	27.9		32.5	29.3
Effective Green, g (s)		1.8		9.5	9.5			30.7	28.4		33.5	29.8
Actuated g/C Ratio		0.03		0.18	0.18			0.57	0.53		0.62	0.56
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		56		266	287			533	1842		379	2002
v/s Ratio Prot		0.00		c0.01	0.01			0.00	c0.26		c0.01	0.15
v/s Ratio Perm				c0.02				0.04			0.12	
v/c Ratio		0.07		0.17	0.05			0.08	0.49		0.21	0.27
Uniform Delay, d1		25.1		18.6	18.3			5.0	8.0		4.4	6.2
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.4		0.2	0.1			0.0	0.3		0.2	0.1
Delay (s)		25.5		18.8	18.3			5.1	8.2		4.6	6.3
Level of Service		C		B	B			A	A		A	A
Approach Delay (s)		25.5			18.5				8.1			6.1
Approach LOS		C			B				A			A

Intersection Summary

HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	53.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/31/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	7
Future Volume (vph)	7
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	8
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis

1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↘	↘	↘
Traffic Volume (vph)	86	870	524	227	132	34
Future Volume (vph)	86	870	524	227	132	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1805	3610	3610	1615	1805	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1805	3610	3610	1615	1805	1615
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	97	978	589	255	148	38
RTOR Reduction (vph)	0	0	0	137	0	23
Lane Group Flow (vph)	97	978	589	118	148	15
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	10.9	38.6	22.3	22.3	11.7	11.7
Effective Green, g (s)	12.3	40.0	23.7	23.7	13.1	13.1
Actuated g/C Ratio	0.21	0.67	0.40	0.40	0.22	0.22
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	371	2418	1433	641	396	354
v/s Ratio Prot	0.05	c0.27	0.16		c0.08	
v/s Ratio Perm				0.07		0.01
v/c Ratio	0.26	0.40	0.41	0.18	0.37	0.04
Uniform Delay, d1	19.9	4.5	13.0	11.7	19.8	18.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.2	0.3	0.2	0.4	0.0
Delay (s)	20.2	4.6	13.2	11.9	20.2	18.4
Level of Service	C	A	B	B	C	B
Approach Delay (s)		6.0	12.8		19.9	
Approach LOS		A	B		B	

Intersection Summary

HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	59.7	Sum of lost time (s)	10.6
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↷	↶	↶	↶	
Traffic Volume (veh/h)	86	870	524	227	132	34	
Future Volume (veh/h)	86	870	524	227	132	34	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	97	978	589	255	148	0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	184	2827	2263	1010	230		
Arrive On Green	0.10	0.78	0.63	0.63	0.13	0.00	
Sat Flow, veh/h	1810	3705	3705	1610	1810	1610	
Grp Volume(v), veh/h	97	978	589	255	148	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1810	1610	
Q Serve(g_s), s	3.7	5.9	5.4	5.2	5.7	0.0	
Cycle Q Clear(g_c), s	3.7	5.9	5.4	5.2	5.7	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	184	2827	2263	1010	230		
V/C Ratio(X)	0.53	0.35	0.26	0.25	0.64		
Avail Cap(c_a), veh/h	2162	16324	11814	5270	3032		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	31.4	2.4	6.1	6.1	30.5	0.0	
Incr Delay (d2), s/veh	1.7	0.1	0.1	0.2	2.2	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.6	0.6	1.5	1.3	2.6	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	33.1	2.5	6.2	6.3	32.8	0.0	
LnGrp LOS	C	A	A	A	C		
Approach Vol, veh/h		1075	844		148	A	
Approach Delay, s/veh		5.2	6.2		32.8		
Approach LOS		A	A		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				61.7	12.0	11.5	50.2
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 3.3E2	122.0	* 87	* 2.4E2
Max Q Clear Time (g_c+I1), s				7.9	7.7	5.7	7.4
Green Ext Time (p_c), s				48.3	0.7	0.3	25.1

Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	7.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	43	98	36	12	188	112
Future Vol, veh/h	43	98	36	12	188	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	0	13	0	0	2
Mvmt Flow	48	109	40	13	209	124

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	157	0	196
Stage 1	-	-	-	-	103
Stage 2	-	-	-	-	93
Critical Hdwy	-	-	4.23	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.317	-	3.5
Pot Cap-1 Maneuver	-	-	1358	-	797
Stage 1	-	-	-	-	926
Stage 2	-	-	-	-	936
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1358	-	774
Mov Cap-2 Maneuver	-	-	-	-	774
Stage 1	-	-	-	-	926
Stage 2	-	-	-	-	909

Approach	EB	WB	NB
HCM Control Delay, s	0	5.8	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	774	952	-	-	1358	-
HCM Lane V/C Ratio	0.27	0.131	-	-	0.029	-
HCM Control Delay (s)	11.4	9.3	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1.1	0.4	-	-	0.1	-

HCM Signalized Intersection Capacity Analysis
10: Beltline & Gateway

05/31/2023

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	511	872	572	2	44	427	133	389	245	69	138	173
Future Volume (vph)	511	872	572	2	44	427	133	389	245	69	138	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0		4.0	4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00		1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.96		1.00	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)	3502	5187	2842		1805	5002		3502	1837		1805	1900
Flt Permitted	0.95	1.00	1.00		0.14	1.00		0.95	1.00		0.95	1.00
Satd. Flow (perm)	3502	5187	2842		259	5002		3502	1837		1805	1900
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	568	969	636	2	49	474	148	432	272	77	153	192
RTOR Reduction (vph)	0	0	475	0	0	48	0	0	9	0	0	0
Lane Group Flow (vph)	568	969	161	0	51	574	0	432	340	0	153	192
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3								
Actuated Green, G (s)	21.7	25.9	25.9		28.0	32.2		16.3	23.6		11.0	18.3
Effective Green, g (s)	23.1	27.3	27.3		29.4	33.6		16.8	24.1		11.5	18.8
Actuated g/C Ratio	0.21	0.25	0.25		0.27	0.31		0.16	0.22		0.11	0.17
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5		4.5	4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	749	1312	719		70	1557		545	410		192	331
v/s Ratio Prot	0.16	c0.19				0.11		c0.12	c0.19		0.08	0.10
v/s Ratio Perm			0.06		c0.20							
v/c Ratio	0.76	0.74	0.22		0.73	0.37		0.79	0.83		0.80	0.58
Uniform Delay, d1	39.8	37.0	31.9		35.6	28.9		43.9	40.0		47.1	40.9
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	4.2	2.4	0.2		29.6	0.2		7.5	13.1		19.5	2.1
Delay (s)	44.0	39.4	32.1		65.2	29.1		51.4	53.0		66.6	43.1
Level of Service	D	D	C		E	C		D	D		E	D
Approach Delay (s)		38.5				31.8			52.1			46.6
Approach LOS		D				C			D			D
Intersection Summary												
HCM 2000 Control Delay			41.1			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			107.9			Sum of lost time (s)			15.6			
Intersection Capacity Utilization			63.9%			ICU Level of Service			B			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

05/31/2023

Movement	SBR
Lane Configurations	FF
Traffic Volume (vph)	234
Future Volume (vph)	234
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	0.88
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	2842
Flt Permitted	1.00
Satd. Flow (perm)	2842
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	260
RTOR Reduction (vph)	215
Lane Group Flow (vph)	45
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	18.3
Effective Green, g (s)	18.8
Actuated g/C Ratio	0.17
Clearance Time (s)	4.5
Vehicle Extension (s)	2.5
Lane Grp Cap (vph)	495
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.09
Uniform Delay, d1	37.4
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	37.4
Level of Service	D
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
17: Gateway & Game Farm

05/31/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕		↖	↗			↖	↗		↖	↗
Traffic Volume (vph)	0	3	23	45	2	63	2	35	626	216	81	475
Future Volume (vph)	0	3	23	45	2	63	2	35	626	216	81	475
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.96		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1670		1805	1623			1805	3471		1805	3602
Flt Permitted		1.00		0.68	1.00			0.45	1.00		0.21	1.00
Satd. Flow (perm)		1670		1288	1623			860	3471		406	3602
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	3	26	50	2	70	2	39	696	240	90	528
RTOR Reduction (vph)	0	25	0	0	58	0	0	0	31	0	0	1
Lane Group Flow (vph)	0	4	0	50	14	0	0	41	905	0	90	535
Turn Type		NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		1.9		9.3	9.3			29.9	28.0		36.3	31.2
Effective Green, g (s)		1.9		9.8	9.8			30.9	28.5		37.3	31.7
Actuated g/C Ratio		0.03		0.18	0.18			0.55	0.51		0.67	0.57
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		56		261	284			515	1769		411	2042
v/s Ratio Prot		0.00		c0.01	0.01			0.00	c0.26		c0.02	0.15
v/s Ratio Perm				c0.02				0.04			0.12	
v/c Ratio		0.07		0.19	0.05			0.08	0.51		0.22	0.26
Uniform Delay, d1		26.1		19.6	19.2			5.7	9.1		4.2	6.2
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.4		0.3	0.1			0.0	0.3		0.2	0.1
Delay (s)		26.5		19.8	19.2			5.8	9.4		4.4	6.2
Level of Service		C		B	B			A	A		A	A
Approach Delay (s)		26.5			19.5				9.3			6.0
Approach LOS		C			B				A			A

Intersection Summary

HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	55.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	7
Future Volume (vph)	7
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	8
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	141	163	37	0	20
Future Vol, veh/h	0	141	163	37	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	157	181	41	0	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	844
HCM Lane V/C Ratio	-	-	-	0.026
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0.1

HCM Signalized Intersection Capacity Analysis
 1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑↑	↑↑	↘	↙	↘
Traffic Volume (vph)	26	681	711	109	233	51
Future Volume (vph)	26	681	711	109	233	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3610	3610	1599	1770	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3610	3610	1599	1770	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	30	792	827	127	271	59
RTOR Reduction (vph)	0	0	0	46	0	18
Lane Group Flow (vph)	30	792	827	81	271	41
Heavy Vehicles (%)	8%	0%	0%	1%	2%	0%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	7.9	49.9	36.6	36.6	21.5	21.5
Effective Green, g (s)	9.3	51.3	38.0	38.0	22.9	22.9
Actuated g/C Ratio	0.12	0.63	0.47	0.47	0.28	0.28
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	192	2291	1697	752	501	457
v/s Ratio Prot	0.02	c0.22	c0.23		c0.15	
v/s Ratio Perm				0.05		0.03
v/c Ratio	0.16	0.35	0.49	0.11	0.54	0.09
Uniform Delay, d1	32.2	6.9	14.7	11.9	24.5	21.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1	0.3	0.1	0.9	0.1
Delay (s)	32.5	7.0	15.0	12.0	25.4	21.3
Level of Service	C	A	B	B	C	C
Approach Delay (s)		8.0	14.6		24.7	
Approach LOS		A	B		C	

Intersection Summary

HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.8	Sum of lost time (s)	10.6
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary

1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↷	↶	↶	↶	
Traffic Volume (veh/h)	26	681	711	109	233	51	
Future Volume (veh/h)	26	681	711	109	233	51	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1781	1900	1900	1885	1870	1900	
Adj Flow Rate, veh/h	30	792	827	127	271	0	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Percent Heavy Veh, %	8	0	0	1	2	0	
Cap, veh/h	109	2609	2205	976	354		
Arrive On Green	0.06	0.72	0.61	0.61	0.20	0.00	
Sat Flow, veh/h	1697	3705	3705	1598	1781	1610	
Grp Volume(v), veh/h	30	792	827	127	271	0	
Grp Sat Flow(s),veh/h/ln	1697	1805	1805	1598	1781	1610	
Q Serve(g_s), s	1.4	6.6	9.7	2.8	12.1	0.0	
Cycle Q Clear(g_c), s	1.4	6.6	9.7	2.8	12.1	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	109	2609	2205	976	354		
V/C Ratio(X)	0.28	0.30	0.37	0.13	0.76		
Avail Cap(c_a), veh/h	1492	14288	10941	4842	2613		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	37.5	4.1	8.3	6.9	31.8	0.0	
Incr Delay (d2), s/veh	1.0	0.1	0.2	0.1	2.6	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	1.5	3.0	0.8	5.4	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	38.5	4.2	8.4	7.0	34.4	0.0	
LnGrp LOS	D	A	A	A	C		
Approach Vol, veh/h		822	954		271	A	
Approach Delay, s/veh		5.5	8.2		34.4		
Approach LOS		A	A		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				64.8	19.3	9.4	55.4
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 3.3E2	122.0	* 73	* 2.5E2
Max Q Clear Time (g_c+I1), s				8.6	14.1	3.4	11.7
Green Ext Time (p_c), s				31.0	1.3	0.1	38.3

Intersection Summary

HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	40	207	83	34	112	32
Future Vol, veh/h	40	207	83	34	112	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	1	0	1	0
Mvmt Flow	49	256	102	42	138	40

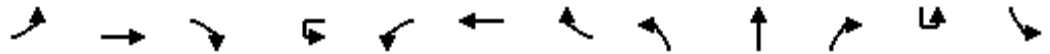
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	305	0	423 177
Stage 1	-	-	-	-	177 -
Stage 2	-	-	-	-	246 -
Critical Hdwy	-	-	4.11	-	6.41 6.2
Critical Hdwy Stg 1	-	-	-	-	5.41 -
Critical Hdwy Stg 2	-	-	-	-	5.41 -
Follow-up Hdwy	-	-	2.209	-	3.509 3.3
Pot Cap-1 Maneuver	-	-	1262	-	589 871
Stage 1	-	-	-	-	856 -
Stage 2	-	-	-	-	797 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1262	-	541 871
Mov Cap-2 Maneuver	-	-	-	-	541 -
Stage 1	-	-	-	-	856 -
Stage 2	-	-	-	-	732 -

Approach	EB	WB	NB
HCM Control Delay, s	0	5.7	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	541	871	-	-	1262	-
HCM Lane V/C Ratio	0.256	0.045	-	-	0.081	-
HCM Control Delay (s)	13.9	9.3	-	-	8.1	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1	0.1	-	-	0.3	-

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

05/31/2023



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations	↖↗	↑↑↑	↖↗		↖	↑↑↑		↖↗	↑			↖
Traffic Volume (vph)	280	496	778	2	117	612	97	605	200	75	2	154
Future Volume (vph)	280	496	778	2	117	612	97	605	200	75	2	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0			4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00			1.00
Frt	1.00	1.00	0.85		1.00	0.98		1.00	0.96			1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00			0.95
Satd. Flow (prot)	3400	5085	2787		1805	5030		3433	1804			1787
Flt Permitted	0.95	1.00	1.00		0.13	1.00		0.95	1.00			0.08
Satd. Flow (perm)	3400	5085	2787		252	5030		3433	1804			157
Peak-hour factor, PHF	0.96	0.96	0.96	0.71	0.96	0.96	0.96	0.96	0.96	0.96	0.71	0.96
Adj. Flow (vph)	292	517	810	3	122	638	101	630	208	78	3	160
RTOR Reduction (vph)	0	0	733	0	0	18	0	0	11	0	0	0
Lane Group Flow (vph)	292	517	77	0	125	721	0	630	275	0	0	163
Heavy Vehicles (%)	3%	2%	2%	0%	0%	1%	1%	2%	1%	1%	0%	1%
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		custom	Prot
Protected Phases	7	4			3	8		5	2			1
Permitted Phases			4	3								
Actuated Green, G (s)	11.7	10.0	10.0		28.8	27.1		25.7	14.3			47.5
Effective Green, g (s)	13.1	11.4	11.4		30.2	28.5		26.2	14.8			48.0
Actuated g/C Ratio	0.11	0.10	0.10		0.25	0.24		0.22	0.12			0.40
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5			4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5			2.5
Lane Grp Cap (vph)	371	483	264		63	1194		749	222			62
v/s Ratio Prot	0.09	c0.10				0.14		0.18	c0.15			
v/s Ratio Perm			0.03		c0.50							c1.04
v/c Ratio	0.79	1.07	0.29		1.98	0.60		0.84	1.24			2.63
Uniform Delay, d1	52.1	54.3	50.5		44.9	40.7		44.9	52.6			36.0
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2	10.2	61.1	0.8		494.5	1.0		8.3	139.1			777.3
Delay (s)	62.3	115.4	51.4		539.4	41.7		53.2	191.7			813.3
Level of Service	E	F	D		F	D		D	F			F
Approach Delay (s)		73.8			113.7			96.5				
Approach LOS		E			F			F				

Intersection Summary		
HCM 2000 Control Delay	104.8	HCM 2000 Level of Service F
HCM 2000 Volume to Capacity ratio	2.06	
Actuated Cycle Length (s)	120.0	Sum of lost time (s) 15.6
Intersection Capacity Utilization	66.9%	ICU Level of Service C
Analysis Period (min)	15	
c Critical Lane Group		

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

05/31/2023






















Movement	SBT	SBR
Lane Configurations	↑	↑↑
Traffic Volume (vph)	272	611
Future Volume (vph)	272	611
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	1.00	0.88
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1881	2842
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1881	2842
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	283	636
RTOR Reduction (vph)	0	284
Lane Group Flow (vph)	283	352
Heavy Vehicles (%)	1%	0%
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	36.1	36.1
Effective Green, g (s)	36.6	36.6
Actuated g/C Ratio	0.31	0.31
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.5	2.5
Lane Grp Cap (vph)	573	866
v/s Ratio Prot	0.15	
v/s Ratio Perm		0.12
v/c Ratio	0.49	0.41
Uniform Delay, d1	34.1	33.1
Progression Factor	1.00	1.00
Incremental Delay, d2	0.5	0.2
Delay (s)	34.6	33.3
Level of Service	C	C
Approach Delay (s)	151.2	
Approach LOS	F	

Intersection Summary

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/31/2023

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	
Lane Configurations													
Traffic Volume (vph)	3	2	27	190	3	82	11	53	464	47	118	809	
Future Volume (vph)	3	2	27	190	3	82	11	53	464	47	118	809	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95	
Frt		0.88		1.00	0.85			1.00	0.99		1.00	1.00	
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1673		1787	1624			1805	3528		1805	3537	
Flt Permitted		1.00		0.68	1.00			0.23	1.00		0.35	1.00	
Satd. Flow (perm)		1680		1275	1624			445	3528		667	3537	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.71	0.91	0.91	0.91	0.91	0.91	
Adj. Flow (vph)	3	2	30	209	3	90	15	58	510	52	130	889	
RTOR Reduction (vph)	0	29	0	0	63	0	0	0	7	0	0	1	
Lane Group Flow (vph)	0	6	0	209	30	0	0	73	555	0	130	893	
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	2%	
Turn Type	Perm	NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA	
Protected Phases		4		3	8			5	2		1	6	
Permitted Phases	4			8			5	2			6		
Actuated Green, G (s)		1.9		17.0	17.0			25.9	22.1		29.9	24.1	
Effective Green, g (s)		1.9		17.5	17.5			26.9	22.6		30.9	24.6	
Actuated g/C Ratio		0.03		0.30	0.30			0.46	0.39		0.53	0.42	
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5	
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0	
Lane Grp Cap (vph)		54		483	486			305	1365		475	1489	
v/s Ratio Prot				c0.09	0.02			0.02	0.16		c0.03	c0.25	
v/s Ratio Perm		0.00		c0.04				0.09			0.12		
v/c Ratio		0.11		0.43	0.06			0.24	0.41		0.27	0.60	
Uniform Delay, d1		27.4		16.3	14.6			9.2	13.0		7.2	13.1	
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7		0.5	0.0			0.3	0.3		0.2	0.8	
Delay (s)		28.1		16.7	14.6			9.5	13.3		7.5	13.9	
Level of Service		C		B	B			A	B		A	B	
Approach Delay (s)		28.1			16.1				12.9			13.1	
Approach LOS		C			B				B			B	
Intersection Summary													
HCM 2000 Control Delay			13.7									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.56										
Actuated Cycle Length (s)			58.4									Sum of lost time (s)	16.0
Intersection Capacity Utilization			53.3%									ICU Level of Service	A
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/31/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	5
Future Volume (vph)	5
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	5
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
 1: Beltline/MLK Pkwy & Game Farm Rd

05/30/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑↑	↑↑	↑	↘	↘
Traffic Volume (vph)	27	708	739	113	242	53
Future Volume (vph)	27	708	739	113	242	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3610	3610	1599	1770	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3610	3610	1599	1770	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	31	823	859	131	281	62
RTOR Reduction (vph)	0	0	0	45	0	21
Lane Group Flow (vph)	31	823	859	86	281	41
Heavy Vehicles (%)	8%	0%	0%	1%	2%	0%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	8.8	52.2	38.0	38.0	29.2	29.2
Effective Green, g (s)	10.2	53.6	39.4	39.4	30.6	30.6
Actuated g/C Ratio	0.11	0.59	0.43	0.43	0.34	0.34
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	187	2131	1566	693	596	544
v/s Ratio Prot	0.02	c0.23	c0.24		c0.16	
v/s Ratio Perm				0.05		0.03
v/c Ratio	0.17	0.39	0.55	0.12	0.47	0.08
Uniform Delay, d1	36.5	9.9	19.1	15.4	23.7	20.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.2	0.5	0.1	0.4	0.0
Delay (s)	36.8	10.0	19.6	15.5	24.2	20.5
Level of Service	D	B	B	B	C	C
Approach Delay (s)		11.0	19.0		23.5	
Approach LOS		B	B		C	

Intersection Summary

HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.8	Sum of lost time (s)	10.6
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

05/30/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷	↷	↶	↶	↶	
Traffic Volume (veh/h)	27	708	739	113	242	53	
Future Volume (veh/h)	27	708	739	113	242	53	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1781	1900	1900	1885	1870	1900	
Adj Flow Rate, veh/h	31	823	859	131	281	0	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Percent Heavy Veh, %	8	0	0	1	2	0	
Cap, veh/h	102	2614	2235	989	360		
Arrive On Green	0.06	0.72	0.62	0.62	0.20	0.00	
Sat Flow, veh/h	1697	3705	3705	1598	1781	1610	
Grp Volume(v), veh/h	31	823	859	131	281	0	
Grp Sat Flow(s),veh/h/ln	1697	1805	1805	1598	1781	1610	
Q Serve(g_s), s	1.6	7.3	10.6	3.0	13.4	0.0	
Cycle Q Clear(g_c), s	1.6	7.3	10.6	3.0	13.4	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	102	2614	2235	989	360		
V/C Ratio(X)	0.30	0.31	0.38	0.13	0.78		
Avail Cap(c_a), veh/h	607	11174	9722	4302	3571		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	40.2	4.4	8.5	7.1	33.8	0.0	
Incr Delay (d2), s/veh	1.2	0.1	0.2	0.1	2.8	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	1.8	3.4	0.9	6.0	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	41.5	4.5	8.7	7.2	36.6	0.0	
LnGrp LOS	D	A	A	A	D		
Approach Vol, veh/h		854	990		281	A	
Approach Delay, s/veh		5.8	8.5		36.6		
Approach LOS		A	A		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				68.8	20.7	9.4	59.4
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 2.8E2	178.0	* 31	* 2.4E2
Max Q Clear Time (g_c+I1), s				9.3	15.4	3.6	12.6
Green Ext Time (p_c), s				33.3	1.3	0.1	41.4

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	5.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	42	215	86	35	116	33
Future Vol, veh/h	42	215	86	35	116	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	1	0	1	0
Mvmt Flow	52	265	106	43	143	41





























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	317	0	440 185
Stage 1	-	-	-	-	185 -
Stage 2	-	-	-	-	255 -
Critical Hdwy	-	-	4.11	-	6.41 6.2
Critical Hdwy Stg 1	-	-	-	-	5.41 -
Critical Hdwy Stg 2	-	-	-	-	5.41 -
Follow-up Hdwy	-	-	2.209	-	3.509 3.3
Pot Cap-1 Maneuver	-	-	1249	-	576 862
Stage 1	-	-	-	-	849 -
Stage 2	-	-	-	-	790 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1249	-	527 862
Mov Cap-2 Maneuver	-	-	-	-	527 -
Stage 1	-	-	-	-	849 -
Stage 2	-	-	-	-	723 -

Approach	EB	WB	NB
HCM Control Delay, s	0	5.8	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	527	862	-	-	1249	-
HCM Lane V/C Ratio	0.272	0.047	-	-	0.085	-
HCM Control Delay (s)	14.4	9.4	-	-	8.2	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.3	-

HCM Signalized Intersection Capacity Analysis
10: Beltline & Gateway

05/30/2023

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations	 	  	 		 	  		 				
Traffic Volume (vph)	291	516	809	2	122	636	101	629	208	78	2	160
Future Volume (vph)	291	516	809	2	122	636	101	629	208	78	2	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0			4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00			1.00
Frt	1.00	1.00	0.85		1.00	0.98		1.00	0.96			1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00			0.95
Satd. Flow (prot)	3400	5085	2787		1805	5030		3433	1804			1787
Flt Permitted	0.95	1.00	1.00		0.13	1.00		0.95	1.00			0.08
Satd. Flow (perm)	3400	5085	2787		252	5030		3433	1804			154
Peak-hour factor, PHF	0.96	0.96	0.96	0.71	0.96	0.96	0.96	0.96	0.96	0.96	0.71	0.96
Adj. Flow (vph)	303	538	843	3	127	662	105	655	217	81	3	167
RTOR Reduction (vph)	0	0	763	0	0	18	0	0	12	0	0	0
Lane Group Flow (vph)	303	538	80	0	130	750	0	655	286	0	0	170
Heavy Vehicles (%)	3%	2%	2%	0%	0%	1%	1%	2%	1%	1%	0%	1%
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		custom	Prot
Protected Phases	7	4			3	8		5	2			1
Permitted Phases			4	3								
Actuated Green, G (s)	12.5	10.0	10.0		28.8	26.3		26.6	13.3			48.5
Effective Green, g (s)	13.9	11.4	11.4		30.2	27.7		27.1	13.8			49.0
Actuated g/C Ratio	0.12	0.10	0.10		0.25	0.23		0.23	0.12			0.41
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5			4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5			2.5
Lane Grp Cap (vph)	393	483	264		63	1161		775	207			62
v/s Ratio Prot	0.09	c0.11				0.15		0.19	c0.16			
v/s Ratio Perm			0.03		c0.52							c1.11
v/c Ratio	0.77	1.11	0.30		2.06	0.65		0.85	1.38			2.74
Uniform Delay, d1	51.5	54.3	50.6		44.9	41.7		44.4	53.1			35.5
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2	8.7	75.9	0.9		528.7	1.4		8.3	199.9			827.2
Delay (s)	60.2	130.2	51.5		573.6	43.1		52.7	253.0			862.7
Level of Service	E	F	D		F	D		D	F			F
Approach Delay (s)		78.2				119.9			115.4			
Approach LOS		E				F			F			
Intersection Summary												
HCM 2000 Control Delay			113.5			HCM 2000 Level of Service			F			
HCM 2000 Volume to Capacity ratio			2.17									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			15.6			
Intersection Capacity Utilization			69.0%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

05/30/2023



Movement	SBT	SBR
Lane Configurations	↑	↑↑
Traffic Volume (vph)	283	635
Future Volume (vph)	283	635
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	1.00	0.88
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1881	2842
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1881	2842
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	295	661
RTOR Reduction (vph)	0	301
Lane Group Flow (vph)	295	360
Heavy Vehicles (%)	1%	0%
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	35.2	35.2
Effective Green, g (s)	35.7	35.7
Actuated g/C Ratio	0.30	0.30
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.5	2.5
Lane Grp Cap (vph)	559	845
v/s Ratio Prot	0.16	
v/s Ratio Perm		0.13
v/c Ratio	0.53	0.43
Uniform Delay, d1	35.1	33.9
Progression Factor	1.00	1.00
Incremental Delay, d2	0.7	0.3
Delay (s)	35.8	34.2
Level of Service	D	C
Approach Delay (s)	159.7	
Approach LOS	F	

Intersection Summary

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
17: Gateway & Game Farm

05/30/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕		↖	↗			↖	↗		↖	↗
Traffic Volume (vph)	3	2	28	198	3	85	11	55	483	49	123	841
Future Volume (vph)	3	2	28	198	3	85	11	55	483	49	123	841
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.99		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1672		1608	1624			1805	3528		1805	3537
Flt Permitted		0.96		0.61	1.00			0.18	1.00		0.36	1.00
Satd. Flow (perm)		1609		1040	1624			346	3528		679	3537
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.71	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	2	31	218	3	93	15	60	531	54	135	924
RTOR Reduction (vph)	0	29	0	0	63	0	0	0	7	0	0	1
Lane Group Flow (vph)	0	7	0	218	33	0	0	75	578	0	135	928
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	2%
Parking (#/hr)				0								
Turn Type	Perm	NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		3.1		19.7	19.7			29.4	23.9		30.0	24.2
Effective Green, g (s)		3.1		20.2	20.2			30.4	24.4		31.0	24.7
Actuated g/C Ratio		0.05		0.32	0.32			0.48	0.39		0.49	0.39
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		79		452	521			306	1368		447	1388
v/s Ratio Prot				c0.10	0.02			0.02	0.16		c0.03	c0.26
v/s Ratio Perm		0.00		c0.05				0.09			0.12	
v/c Ratio		0.08		0.48	0.06			0.25	0.42		0.30	0.67
Uniform Delay, d1		28.5		16.9	14.8			9.7	14.1		8.9	15.7
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3		0.6	0.0			0.3	0.3		0.3	1.4
Delay (s)		28.9		17.4	14.8			10.0	14.4		9.2	17.1
Level of Service		C		B	B			A	B		A	B
Approach Delay (s)		28.9			16.6				13.9			16.1
Approach LOS		C			B				B			B

Intersection Summary

HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	62.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/30/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	5
Future Volume (vph)	5
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	5
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	0%
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
 1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑↑	↑↑	↑	↘	↘
Traffic Volume (vph)	33	708	739	116	255	58
Future Volume (vph)	33	708	739	116	255	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3610	3610	1599	1770	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3610	3610	1599	1770	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	38	823	859	135	297	67
RTOR Reduction (vph)	0	0	0	46	0	21
Lane Group Flow (vph)	38	823	859	89	297	46
Heavy Vehicles (%)	8%	0%	0%	1%	2%	0%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	9.7	54.7	39.6	39.6	31.5	31.5
Effective Green, g (s)	11.1	56.1	41.0	41.0	32.9	32.9
Actuated g/C Ratio	0.12	0.59	0.43	0.43	0.34	0.34
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	194	2118	1548	685	609	555
v/s Ratio Prot	0.02	c0.23	c0.24		c0.17	
v/s Ratio Perm				0.06		0.03
v/c Ratio	0.20	0.39	0.55	0.13	0.49	0.08
Uniform Delay, d1	38.2	10.6	20.5	16.5	24.7	21.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.2	0.5	0.1	0.4	0.0
Delay (s)	38.6	10.7	21.0	16.6	25.2	21.2
Level of Service	D	B	C	B	C	C
Approach Delay (s)		12.0	20.4		24.4	
Approach LOS		B	C		C	

Intersection Summary

HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	95.6	Sum of lost time (s)	10.6
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary

1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↙	↑↑	↑↑	↘	↙	↘	
Traffic Volume (veh/h)	33	708	739	116	255	58	
Future Volume (veh/h)	33	708	739	116	255	58	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1781	1900	1900	1885	1870	1900	
Adj Flow Rate, veh/h	38	823	859	135	297	0	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Percent Heavy Veh, %	8	0	0	1	2	0	
Cap, veh/h	102	2588	2214	980	375		
Arrive On Green	0.06	0.72	0.61	0.61	0.21	0.00	
Sat Flow, veh/h	1697	3705	3705	1598	1781	1610	
Grp Volume(v), veh/h	38	823	859	135	297	0	
Grp Sat Flow(s),veh/h/ln	1697	1805	1805	1598	1781	1610	
Q Serve(g_s), s	2.0	7.6	11.0	3.3	14.4	0.0	
Cycle Q Clear(g_c), s	2.0	7.6	11.0	3.3	14.4	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	102	2588	2214	980	375		
V/C Ratio(X)	0.37	0.32	0.39	0.14	0.79		
Avail Cap(c_a), veh/h	689	10892	9268	4102	3545		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	41.2	4.7	8.9	7.4	34.1	0.0	
Incr Delay (d2), s/veh	1.7	0.1	0.2	0.1	2.8	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	1.9	3.6	0.9	6.5	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	42.9	4.8	9.1	7.5	36.9	0.0	
LnGrp LOS	D	A	A	A	D		
Approach Vol, veh/h		861	994		297	A	
Approach Delay, s/veh		6.5	8.9		36.9		
Approach LOS		A	A		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				69.3	21.8	9.5	59.9
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 2.7E2	180.0	* 36	* 2.3E2
Max Q Clear Time (g_c+I1), s				9.6	16.4	4.0	13.0
Green Ext Time (p_c), s				33.3	1.4	0.1	41.5

Intersection Summary

HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	5.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶		↷	↶	↷	↷
Traffic Vol, veh/h	47	233	86	41	125	33
Future Vol, veh/h	47	233	86	41	125	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	1	0	1	0
Mvmt Flow	58	288	106	51	154	41





















Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	346	0	465 202
Stage 1	-	-	-	-	202 -
Stage 2	-	-	-	-	263 -
Critical Hdwy	-	-	4.11	-	6.41 6.2
Critical Hdwy Stg 1	-	-	-	-	5.41 -
Critical Hdwy Stg 2	-	-	-	-	5.41 -
Follow-up Hdwy	-	-	2.209	-	3.509 3.3
Pot Cap-1 Maneuver	-	-	1219	-	558 844
Stage 1	-	-	-	-	834 -
Stage 2	-	-	-	-	783 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1219	-	509 844
Mov Cap-2 Maneuver	-	-	-	-	509 -
Stage 1	-	-	-	-	834 -
Stage 2	-	-	-	-	715 -

Approach	EB	WB	NB
HCM Control Delay, s	0	5.6	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	509	844	-	-	1219	-
HCM Lane V/C Ratio	0.303	0.048	-	-	0.087	-
HCM Control Delay (s)	15.1	9.5	-	-	8.2	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	1.3	0.2	-	-	0.3	-

HCM Signalized Intersection Capacity Analysis
10: Beltline & Gateway

05/31/2023

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	294	519	809	2	124	693	101	629	210	81	2	160
Future Volume (vph)	294	519	809	2	124	693	101	629	210	81	2	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0			4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00			1.00
Frt	1.00	1.00	0.85		1.00	0.98		1.00	0.96			1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00			0.95
Satd. Flow (prot)	3400	5085	2787		1805	5038		3433	1803			1787
Flt Permitted	0.95	1.00	1.00		0.13	1.00		0.95	1.00			0.08
Satd. Flow (perm)	3400	5085	2787		252	5038		3433	1803			157
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	306	541	843	2	129	722	105	655	219	84	2	167
RTOR Reduction (vph)	0	0	763	0	0	16	0	0	11	0	0	0
Lane Group Flow (vph)	306	541	80	0	131	811	0	655	292	0	0	169
Heavy Vehicles (%)	3%	2%	2%	0%	0%	1%	1%	2%	1%	1%	0%	1%
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		custom	Prot
Protected Phases	7	4			3	8		5	2			1
Permitted Phases			4	3								
Actuated Green, G (s)	11.8	10.0	10.0		28.8	27.0		25.9	14.3			47.5
Effective Green, g (s)	13.2	11.4	11.4		30.2	28.4		26.4	14.8			48.0
Actuated g/C Ratio	0.11	0.10	0.10		0.25	0.24		0.22	0.12			0.40
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5			4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5			2.5
Lane Grp Cap (vph)	374	483	264		63	1192		755	222			62
v/s Ratio Prot	0.09	c0.11				0.16		0.19	c0.16			
v/s Ratio Perm			0.03		c0.52							c1.08
v/c Ratio	0.82	1.12	0.30		2.08	0.68		0.87	1.31			2.73
Uniform Delay, d1	52.2	54.3	50.6		44.9	41.7		45.1	52.6			36.0
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2	12.7	78.1	0.9		535.6	1.8		10.2	169.4			820.0
Delay (s)	64.9	132.4	51.5		580.5	43.4		55.3	222.0			856.0
Level of Service	E	F	D		F	D		E	F			F
Approach Delay (s)		79.8			116.9			108.1				
Approach LOS		E			F			F				
Intersection Summary												
HCM 2000 Control Delay			111.2		HCM 2000 Level of Service			F				
HCM 2000 Volume to Capacity ratio			2.14									
Actuated Cycle Length (s)			120.0		Sum of lost time (s)			15.6				
Intersection Capacity Utilization			70.8%		ICU Level of Service			C				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

05/31/2023






















Movement	SBT	SBR
Lane Configurations	↑	↑↑
Traffic Volume (vph)	294	648
Future Volume (vph)	294	648
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	1.00	0.88
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1881	2842
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1881	2842
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	306	675
RTOR Reduction (vph)	0	279
Lane Group Flow (vph)	306	396
Heavy Vehicles (%)	1%	0%
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	35.9	35.9
Effective Green, g (s)	36.4	36.4
Actuated g/C Ratio	0.30	0.30
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.5	2.5
Lane Grp Cap (vph)	570	862
v/s Ratio Prot	0.16	
v/s Ratio Perm		0.14
v/c Ratio	0.54	0.46
Uniform Delay, d1	34.8	33.8
Progression Factor	1.00	1.00
Incremental Delay, d2	0.8	0.3
Delay (s)	35.5	34.1
Level of Service	D	C
Approach Delay (s)	155.3	
Approach LOS	F	

Intersection Summary

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/31/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	3	2	28	22	3	91	11	55	483	54	127	841
Future Volume (vph)	3	2	28	22	3	91	11	55	483	54	127	841
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.98		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1672		1787	1623			1805	3524		1805	3537
Flt Permitted		0.96		0.64	1.00			0.26	1.00		0.37	1.00
Satd. Flow (perm)		1615		1205	1623			486	3524		700	3537
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	2	31	24	3	100	12	60	531	59	140	924
RTOR Reduction (vph)	0	28	0	0	80	0	0	0	8	0	0	1
Lane Group Flow (vph)	0	8	0	24	23	0	0	72	582	0	140	928
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	2%
Turn Type	Perm	NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		5.1		10.0	10.0			27.8	24.1		31.4	25.9
Effective Green, g (s)		5.1		10.5	10.5			28.8	24.6		32.4	26.4
Actuated g/C Ratio		0.10		0.20	0.20			0.54	0.46		0.61	0.50
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		155		253	320			367	1632		551	1758
v/s Ratio Prot				c0.00	0.01			0.02	0.17		c0.03	c0.26
v/s Ratio Perm		0.00		c0.02				0.09			0.13	
v/c Ratio		0.05		0.09	0.07			0.20	0.36		0.25	0.53
Uniform Delay, d1		21.8		17.5	17.3			6.0	9.2		4.5	9.1
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.1		0.1	0.1			0.2	0.2		0.2	0.4
Delay (s)		21.9		17.6	17.4			6.2	9.3		4.7	9.5
Level of Service		C		B	B			A	A		A	A
Approach Delay (s)		21.9			17.4				9.0			8.9
Approach LOS		C			B				A			A
Intersection Summary												
HCM 2000 Control Delay			9.7			HCM 2000 Level of Service			A			
HCM 2000 Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			53.1			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			44.8%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	5
Future Volume (vph)	5
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	5
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	280	152	15	0	47
Future Vol, veh/h	0	280	152	15	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	311	169	17	0	52

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	870
HCM Lane V/C Ratio	-	-	-	0.06
HCM Control Delay (s)	-	-	-	9.4
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0.2

HCM Signalized Intersection Capacity Analysis

1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗↗	↗↗	↖	↖	↖
Traffic Volume (vph)	30	776	811	124	266	58
Future Volume (vph)	30	776	811	124	266	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3610	3610	1599	1770	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3610	3610	1599	1770	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	35	902	943	144	309	67
RTOR Reduction (vph)	0	0	0	46	0	19
Lane Group Flow (vph)	35	902	943	98	309	48
Heavy Vehicles (%)	8%	0%	0%	1%	2%	0%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	10.4	62.0	46.2	46.2	40.3	40.3
Effective Green, g (s)	11.8	63.4	47.6	47.6	41.7	41.7
Actuated g/C Ratio	0.11	0.57	0.43	0.43	0.37	0.37
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	176	2049	1538	681	660	602
v/s Ratio Prot	0.02	c0.25	c0.26		c0.17	
v/s Ratio Perm				0.06		0.03
v/c Ratio	0.20	0.44	0.61	0.14	0.47	0.08
Uniform Delay, d1	45.6	13.9	24.9	19.6	26.6	22.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.2	0.8	0.1	0.4	0.0
Delay (s)	46.0	14.1	25.7	19.7	27.0	22.7
Level of Service	D	B	C	B	C	C
Approach Delay (s)		15.3	24.9		26.2	
Approach LOS		B	C		C	

Intersection Summary

HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	111.7	Sum of lost time (s)	10.6
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↙	↑↑	↑↑	↘	↙	↘	
Traffic Volume (veh/h)	30	776	811	124	266	58	
Future Volume (veh/h)	30	776	811	124	266	58	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1781	1900	1900	1885	1870	1900	
Adj Flow Rate, veh/h	35	902	943	144	309	0	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Percent Heavy Veh, %	8	0	0	1	2	0	
Cap, veh/h	89	2624	2300	1018	376		
Arrive On Green	0.05	0.73	0.64	0.64	0.21	0.00	
Sat Flow, veh/h	1697	3705	3705	1598	1781	1610	
Grp Volume(v), veh/h	35	902	943	144	309	0	
Grp Sat Flow(s),veh/h/ln	1697	1805	1805	1598	1781	1610	
Q Serve(g_s), s	2.1	9.7	13.7	3.8	17.7	0.0	
Cycle Q Clear(g_c), s	2.1	9.7	13.7	3.8	17.7	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	89	2624	2300	1018	376		
V/C Ratio(X)	0.39	0.34	0.41	0.14	0.82		
Avail Cap(c_a), veh/h	509	9402	8185	3622	2977		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	48.9	5.3	9.5	7.7	40.2	0.0	
Incr Delay (d2), s/veh	2.1	0.1	0.2	0.1	3.4	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.9	2.8	4.6	1.2	8.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	51.0	5.4	9.7	7.8	43.6	0.0	
LnGrp LOS	D	A	A	A	D		
Approach Vol, veh/h		937	1087		309	A	
Approach Delay, s/veh		7.1	9.4		43.6		
Approach LOS		A	A		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				81.6	25.1	9.6	72.0
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 2.8E2	177.0	* 31	* 2.4E2
Max Q Clear Time (g_c+I1), s				11.7	19.7	4.1	15.7
Green Ext Time (p_c), s				40.2	1.5	0.1	50.9

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	5.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	46	236	95	39	128	36
Future Vol, veh/h	46	236	95	39	128	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	1	0	1	0
Mvmt Flow	57	291	117	48	158	44





















Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	348	0	485
Stage 1	-	-	-	-	203
Stage 2	-	-	-	-	282
Critical Hdwy	-	-	4.11	-	6.41
Critical Hdwy Stg 1	-	-	-	-	5.41
Critical Hdwy Stg 2	-	-	-	-	5.41
Follow-up Hdwy	-	-	2.209	-	3.509
Pot Cap-1 Maneuver	-	-	1216	-	543
Stage 1	-	-	-	-	833
Stage 2	-	-	-	-	768
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1216	-	491
Mov Cap-2 Maneuver	-	-	-	-	491
Stage 1	-	-	-	-	833
Stage 2	-	-	-	-	694

Approach	EB	WB	NB
HCM Control Delay, s	0	5.9	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	491	843	-	-	1216	-
HCM Lane V/C Ratio	0.322	0.053	-	-	0.096	-
HCM Control Delay (s)	15.8	9.5	-	-	8.3	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	1.4	0.2	-	-	0.3	-

HCM Signalized Intersection Capacity Analysis
10: Beltline & Gateway

05/31/2023

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	319	565	887	2	133	698	111	690	228	86	2	176
Future Volume (vph)	319	565	887	2	133	698	111	690	228	86	2	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0			4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00			1.00
Frt	1.00	1.00	0.85		1.00	0.98		1.00	0.96			1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00			0.95
Satd. Flow (prot)	3502	5187	2842		1805	5080		3502	1822			1805
Flt Permitted	0.95	1.00	1.00		0.11	1.00		0.95	1.00			0.10
Satd. Flow (perm)	3502	5187	2842		210	5080		3502	1822			190
Peak-hour factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	449	796	1249	3	187	983	156	972	321	121	3	248
RTOR Reduction (vph)	0	0	737	0	0	18	0	0	11	0	0	0
Lane Group Flow (vph)	449	796	512	0	190	1121	0	972	431	0	0	251
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		custom	Prot
Protected Phases	7	4			3	8		5	2			1
Permitted Phases			4	3							1	
Actuated Green, G (s)	16.6	11.8	11.8		34.8	30.0		14.5	14.5			39.5
Effective Green, g (s)	18.0	13.2	13.2		36.2	31.4		15.0	15.0			40.0
Actuated g/C Ratio	0.15	0.11	0.11		0.30	0.26		0.12	0.12			0.33
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5			4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5			2.5
Lane Grp Cap (vph)	525	570	312		63	1329		437	227			63
v/s Ratio Prot	0.13	0.15				0.22		0.28	c0.24			
v/s Ratio Perm			c0.18		c0.91							c1.32
v/c Ratio	0.86	1.40	1.64		3.02	0.84		2.22	1.90			3.98
Uniform Delay, d1	49.7	53.4	53.4		41.9	42.0		52.5	52.5			40.0
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2	12.7	188.9	302.7		948.0	5.3		558.3	419.8			1380.0
Delay (s)	62.4	242.3	356.1		989.9	47.3		610.8	472.3			1420.0
Level of Service	E	F	F		F	D		F	F			F
Approach Delay (s)		266.9				182.0			567.5			
Approach LOS		F				F			F			
Intersection Summary												
HCM 2000 Control Delay			306.5			HCM 2000 Level of Service			F			
HCM 2000 Volume to Capacity ratio			3.04									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			15.6			
Intersection Capacity Utilization			74.4%			ICU Level of Service			D			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

05/31/2023



Movement	SBT	SBR
Lane Configurations	↑	↑↑
Traffic Volume (vph)	310	697
Future Volume (vph)	310	697
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	1.00	0.88
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1900	2842
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1900	2842
Peak-hour factor, PHF	0.71	0.71
Adj. Flow (vph)	437	982
RTOR Reduction (vph)	0	388
Lane Group Flow (vph)	437	594
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	39.5	39.5
Effective Green, g (s)	40.0	40.0
Actuated g/C Ratio	0.33	0.33
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.5	2.5
Lane Grp Cap (vph)	633	947
v/s Ratio Prot	0.23	
v/s Ratio Perm		0.21
v/c Ratio	0.69	0.63
Uniform Delay, d1	34.6	33.7
Progression Factor	1.00	1.00
Incremental Delay, d2	3.0	1.1
Delay (s)	37.6	34.8
Level of Service	D	C
Approach Delay (s)	243.8	
Approach LOS	F	
Intersection Summary		

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
17: Gateway & Game Farm

05/31/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕		↕	↕			↕	↕		↕	↕
Traffic Volume (vph)	3	2	31	217	3	93	13	60	529	54	135	922
Future Volume (vph)	3	2	31	217	3	93	13	60	529	54	135	922
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.99		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1672		1805	1623			1805	3560		1805	3607
Flt Permitted		0.96		0.51	1.00			0.10	1.00		0.22	1.00
Satd. Flow (perm)		1605		975	1623			194	3560		421	3607
Peak-hour factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	4	3	44	306	4	131	18	85	745	76	190	1299
RTOR Reduction (vph)	0	42	0	0	91	0	0	0	7	0	0	1
Lane Group Flow (vph)	0	9	0	306	44	0	0	103	814	0	190	1306
Turn Type	Perm	NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		4.9		26.4	26.4			45.4	39.2		52.8	42.9
Effective Green, g (s)		4.9		26.9	26.9			46.4	39.7		53.8	43.4
Actuated g/C Ratio		0.06		0.30	0.30			0.52	0.45		0.60	0.49
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		88		462	490			222	1588		416	1758
v/s Ratio Prot				c0.13	0.03			0.03	0.23		c0.05	c0.36
v/s Ratio Perm		0.01		c0.07				0.21			0.22	
v/c Ratio		0.11		0.66	0.09			0.46	0.51		0.46	0.74
Uniform Delay, d1		40.0		26.2	22.3			14.0	17.7		9.6	18.3
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.4		3.2	0.1			1.1	0.4		0.6	1.9
Delay (s)		40.4		29.4	22.3			15.1	18.1		10.2	20.2
Level of Service		D		C	C			B	B		B	C
Approach Delay (s)		40.4			27.3				17.7			18.9
Approach LOS		D			C				B			B

Intersection Summary

HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	89.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/31/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.71
Adj. Flow (vph)	8
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
 1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷↷	↷↷	↶	↶	↶
Traffic Volume (vph)	36	776	811	127	279	63
Future Volume (vph)	36	776	811	127	279	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3610	3610	1599	1770	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3610	3610	1599	1770	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	42	902	943	148	324	73
RTOR Reduction (vph)	0	0	0	42	0	20
Lane Group Flow (vph)	42	902	943	106	324	53
Heavy Vehicles (%)	8%	0%	0%	1%	2%	0%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	14.2	92.3	72.7	72.7	55.8	55.8
Effective Green, g (s)	15.6	93.7	74.1	74.1	57.2	57.2
Actuated g/C Ratio	0.10	0.59	0.47	0.47	0.36	0.36
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	165	2147	1698	752	642	586
v/s Ratio Prot	0.03	c0.25	c0.26		c0.18	
v/s Ratio Perm				0.07		0.03
v/c Ratio	0.25	0.42	0.56	0.14	0.50	0.09
Uniform Delay, d1	65.6	17.2	29.9	23.6	39.1	33.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.2	0.5	0.1	0.5	0.0
Delay (s)	66.2	17.4	30.4	23.8	39.6	33.1
Level of Service	E	B	C	C	D	C
Approach Delay (s)		19.6	29.5		38.4	
Approach LOS		B	C		D	

Intersection Summary

HCM 2000 Control Delay	27.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	157.5	Sum of lost time (s)	10.6
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

05/31/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↶	↷↷	↷↷	↶	↶	↶	
Traffic Volume (veh/h)	36	776	811	127	279	63	
Future Volume (veh/h)	36	776	811	127	279	63	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1781	1900	1900	1885	1870	1900	
Adj Flow Rate, veh/h	42	902	943	148	324	0	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Percent Heavy Veh, %	8	0	0	1	2	0	
Cap, veh/h	95	2602	2268	1004	390		
Arrive On Green	0.06	0.72	0.63	0.63	0.22	0.00	
Sat Flow, veh/h	1697	3705	3705	1598	1781	1610	
Grp Volume(v), veh/h	42	902	943	148	324	0	
Grp Sat Flow(s),veh/h/ln	1697	1805	1805	1598	1781	1610	
Q Serve(g_s), s	2.6	10.2	14.4	4.2	19.0	0.0	
Cycle Q Clear(g_c), s	2.6	10.2	14.4	4.2	19.0	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	95	2602	2268	1004	390		
V/C Ratio(X)	0.44	0.35	0.42	0.15	0.83		
Avail Cap(c_a), veh/h	558	9103	7783	3445	2936		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	50.0	5.7	10.2	8.3	40.8	0.0	
Incr Delay (d2), s/veh	2.4	0.1	0.2	0.1	3.5	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.1	3.0	5.0	1.3	8.7	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	52.4	5.8	10.4	8.4	44.3	0.0	
LnGrp LOS	D	A	B	A	D		
Approach Vol, veh/h		944	1091		324	A	
Approach Delay, s/veh		7.9	10.1		44.3		
Approach LOS		A	B		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				82.9	26.6	10.1	72.8
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 2.7E2	179.0	* 35	* 2.3E2
Max Q Clear Time (g_c+I1), s				12.2	21.0	4.6	16.4
Green Ext Time (p_c), s				40.2	1.6	0.1	51.0

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	5.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	51	254	95	45	137	36
Future Vol, veh/h	51	254	95	45	137	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	1	0	1	0
Mvmt Flow	63	314	117	56	169	44

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	377	0	510 220
Stage 1	-	-	-	-	220 -
Stage 2	-	-	-	-	290 -
Critical Hdwy	-	-	4.11	-	6.41 6.2
Critical Hdwy Stg 1	-	-	-	-	5.41 -
Critical Hdwy Stg 2	-	-	-	-	5.41 -
Follow-up Hdwy	-	-	2.209	-	3.509 3.3
Pot Cap-1 Maneuver	-	-	1187	-	525 825
Stage 1	-	-	-	-	819 -
Stage 2	-	-	-	-	762 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1187	-	473 825
Mov Cap-2 Maneuver	-	-	-	-	473 -
Stage 1	-	-	-	-	819 -
Stage 2	-	-	-	-	687 -

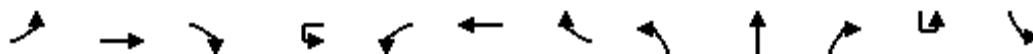
Approach	EB	WB	NB
HCM Control Delay, s	0	5.7	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	473	825	-	-	1187	-
HCM Lane V/C Ratio	0.358	0.054	-	-	0.099	-
HCM Control Delay (s)	16.8	9.6	-	-	8.4	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	1.6	0.2	-	-	0.3	-

HCM Signalized Intersection Capacity Analysis

10: Beltline & Gateway

05/31/2023



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations	↔↔	↑↑↑	↔↔		↔	↑↑↑		↔↔	↑			↔
Traffic Volume (vph)	322	568	887	2	135	701	111	690	230	89	2	176
Future Volume (vph)	322	568	887	2	135	701	111	690	230	89	2	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8		4.0	4.0			4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91		0.97	1.00			1.00
Frt	1.00	1.00	0.85		1.00	0.98		1.00	0.96			1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00			0.95
Satd. Flow (prot)	3502	5187	2842		1805	5081		3502	1821			1805
Flt Permitted	0.95	1.00	1.00		0.11	1.00		0.95	1.00			0.10
Satd. Flow (perm)	3502	5187	2842		210	5081		3502	1821			190
Peak-hour factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	454	800	1249	3	190	987	156	972	324	125	3	248
RTOR Reduction (vph)	0	0	733	0	0	18	0	0	11	0	0	0
Lane Group Flow (vph)	454	800	516	0	193	1125	0	972	438	0	0	251
Turn Type	Prot	NA	Perm	custom	Prot	NA		Prot	NA		custom	Prot
Protected Phases	7	4			3	8		5	2			1
Permitted Phases			4	3							1	
Actuated Green, G (s)	15.8	10.8	10.8		34.8	29.8		14.5	15.5			39.5
Effective Green, g (s)	17.2	12.2	12.2		36.2	31.2		15.0	16.0			40.0
Actuated g/C Ratio	0.14	0.10	0.10		0.30	0.26		0.12	0.13			0.33
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2		4.5	4.5			4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0		2.5	2.5			2.5
Lane Grp Cap (vph)	501	527	288		63	1321		437	242			63
v/s Ratio Prot	0.13	0.15				0.22		0.28	c0.24			
v/s Ratio Perm			c0.18		c0.92							c1.32
v/c Ratio	0.91	1.52	1.79		3.06	0.85		2.22	1.81			3.98
Uniform Delay, d1	50.6	53.9	53.9		41.9	42.2		52.5	52.0			40.0
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2	19.8	242.7	369.8		969.2	5.7		558.3	379.9			1380.0
Delay (s)	70.4	296.6	423.7		1011.1	47.9		610.8	431.9			1420.0
Level of Service	E	F	F		F	D		F	F			F
Approach Delay (s)		319.0				187.0			554.3			
Approach LOS		F				F			F			

Intersection Summary

HCM 2000 Control Delay	322.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	3.06		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

05/31/2023



Movement	SBT	SBR
Lane Configurations	↑	↑↑
Traffic Volume (vph)	321	710
Future Volume (vph)	321	710
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	1.00	0.88
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1900	2842
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1900	2842
Peak-hour factor, PHF	0.71	0.71
Adj. Flow (vph)	452	1000
RTOR Reduction (vph)	0	367
Lane Group Flow (vph)	452	633
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	40.5	40.5
Effective Green, g (s)	41.0	41.0
Actuated g/C Ratio	0.34	0.34
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.5	2.5
Lane Grp Cap (vph)	649	971
v/s Ratio Prot	0.24	
v/s Ratio Perm		0.22
v/c Ratio	0.70	0.65
Uniform Delay, d1	34.1	33.5
Progression Factor	1.00	1.00
Incremental Delay, d2	3.0	1.4
Delay (s)	37.1	34.9
Level of Service	D	C
Approach Delay (s)	239.6	
Approach LOS	F	
Intersection Summary		

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/31/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕		↖	↗			↕	↕		↖	↗
Traffic Volume (vph)	3	2	31	241	3	99	13	60	529	59	139	922
Future Volume (vph)	3	2	31	241	3	99	13	60	529	59	139	922
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.85			1.00	0.98		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1672		1805	1623			1805	3556		1805	3607
Flt Permitted		0.96		0.50	1.00			0.10	1.00		0.21	1.00
Satd. Flow (perm)		1603		957	1623			190	3556		406	3607
Peak-hour factor, PHF	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	4	3	44	339	4	139	18	85	745	83	196	1299
RTOR Reduction (vph)	0	42	0	0	95	0	0	0	7	0	0	1
Lane Group Flow (vph)	0	9	0	339	48	0	0	103	821	0	196	1306
Turn Type	Perm	NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		4.9		28.2	28.2			45.9	39.6		53.7	43.5
Effective Green, g (s)		4.9		28.7	28.7			46.9	40.1		54.7	44.0
Actuated g/C Ratio		0.05		0.31	0.31			0.51	0.44		0.60	0.48
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		85		483	509			217	1558		406	1734
v/s Ratio Prot				c0.15	0.03			0.04	0.23		c0.06	c0.36
v/s Ratio Perm		0.01		c0.07				0.21			0.23	
v/c Ratio		0.11		0.70	0.09			0.47	0.53		0.48	0.75
Uniform Delay, d1		41.2		26.7	22.2			14.9	18.8		10.4	19.3
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.4		4.3	0.1			1.2	0.4		0.7	2.0
Delay (s)		41.6		30.9	22.3			16.1	19.2		11.1	21.4
Level of Service		D		C	C			B	B		B	C
Approach Delay (s)		41.6			28.4				18.8			20.0
Approach LOS		D			C				B			C

Intersection Summary

HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

05/31/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.71
Adj. Flow (vph)	8
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	305	166	15	0	47
Future Vol, veh/h	0	305	166	15	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	339	184	17	0	52

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	854
HCM Lane V/C Ratio	-	-	-	0.061
HCM Control Delay (s)	-	-	-	9.5
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0.2

PEACEHEALTH REHABILITATION HOSPITAL

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	69	87	70	108	48	58	88
Average Queue (ft)	39	51	32	67	22	32	47
95th Queue (ft)	78	97	78	114	53	57	87
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	74	88	58	112	70	58	92
Average Queue (ft)	30	38	23	60	18	32	43
95th Queue (ft)	64	79	55	101	53	51	82
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	82	96	75	118	70	63	96
Average Queue (ft)	32	41	25	62	19	32	44
95th Queue (ft)	68	84	61	104	53	53	83
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	18	52	34
Average Queue (ft)	3	34	26
95th Queue (ft)	19	52	39
Link Distance (ft)			531
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	140	115	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	35	62	48
Average Queue (ft)	3	33	26
95th Queue (ft)	23	52	39
Link Distance (ft)			531
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	140	115	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	42	62	48
Average Queue (ft)	3	33	26
95th Queue (ft)	22	52	39
Link Distance (ft)			531
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	140	115	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	6	18	5
Average Queue (ft)	1	3	1
95th Queue (ft)	8	16	8
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	24	12	24
Average Queue (ft)	1	1	1
95th Queue (ft)	11	7	12
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	24	18	24
Average Queue (ft)	1	1	1
95th Queue (ft)	11	10	11
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
 6035 Peace Health Rehab Zone Change

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Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	220	256	168	152	87	101	8	72	190	165	87	153
Average Queue (ft)	105	171	102	95	23	46	1	32	132	82	46	75
95th Queue (ft)	219	252	175	161	83	105	13	71	198	173	83	162
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	200	231	95	151	79	64
Average Queue (ft)	141	148	63	86	49	30
95th Queue (ft)	205	239	103	163	80	66
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			335		190	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	213	267	174	151	111	130	20	68	178	149	89	170
Average Queue (ft)	102	158	96	78	26	33	1	28	117	61	41	77
95th Queue (ft)	202	234	158	140	78	88	12	59	178	132	75	160
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	204	226	132	164	107	69
Average Queue (ft)	131	119	63	76	46	23
95th Queue (ft)	191	203	118	143	86	56
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			335		190	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	229	280	180	162	133	132	28	76	194	166	98	170
Average Queue (ft)	103	161	98	82	25	36	1	29	120	66	42	76
95th Queue (ft)	206	239	162	146	79	93	12	62	184	144	77	161
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	211	236	132	177	107	81
Average Queue (ft)	133	126	63	78	47	24
95th Queue (ft)	194	214	115	148	85	58
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			335		190	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #1

Movement	SB
Directions Served	TR
Maximum Queue (ft)	6
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	293
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #2

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, All Intervals

Movement	SB
Directions Served	TR
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	293
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Gateway & Game Farm, Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	19	36	35	31	73	81	31	49	70
Average Queue (ft)	4	19	14	11	34	50	8	18	20
95th Queue (ft)	19	42	34	36	76	91	28	49	70
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		115			224		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 17: Gateway & Game Farm, Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	23	56	45	40	94	116	19	84	72
Average Queue (ft)	2	18	15	9	29	48	3	17	21
95th Queue (ft)	15	43	37	30	74	99	12	56	58
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		115			224		
Storage Blk Time (%)	0								
Queuing Penalty (veh)	0								

Intersection: 17: Gateway & Game Farm, All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	29	56	50	49	97	117	31	88	89
Average Queue (ft)	3	18	15	9	30	49	4	17	21
95th Queue (ft)	16	43	36	31	74	97	17	55	61
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		115			224		
Storage Blk Time (%)	0								
Queuing Penalty (veh)	0								

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, All Intervals: 0

Queuing and Blocking Report
 6035 Peace Health Rehab Zone Change

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Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	51	142	127	190	167	40	156	95
Average Queue (ft)	26	76	57	138	91	29	99	14
95th Queue (ft)	60	141	127	205	170	49	168	105
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							3	
Queuing Penalty (veh)							2	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	74	132	104	183	158	48	148	8
Average Queue (ft)	20	64	33	102	53	25	85	0
95th Queue (ft)	57	113	82	165	117	45	139	7
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							0	
Queuing Penalty (veh)							0	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	74	154	139	196	170	48	162	95
Average Queue (ft)	22	67	39	111	62	26	89	4
95th Queue (ft)	58	121	96	180	135	46	147	50
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							1	
Queuing Penalty (veh)							1	

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	15	57	81	34
Average Queue (ft)	5	30	45	20
95th Queue (ft)	20	59	80	38
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	27	48	61	25
Average Queue (ft)	2	18	34	15
95th Queue (ft)	15	46	53	34
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	33	61	85	34
Average Queue (ft)	3	21	36	16
95th Queue (ft)	16	50	62	36
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	36	16	36
Average Queue (ft)	14	2	13
95th Queue (ft)	43	13	40
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	31
Average Queue (ft)	4	5
95th Queue (ft)	22	24
Link Distance (ft)	563	370
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	36	16	36
Average Queue (ft)	7	0	7
95th Queue (ft)	29	6	29
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	182	228	175	142	97	235	226	154	277	227	188	263
Average Queue (ft)	108	149	123	93	24	156	88	94	219	172	108	205
95th Queue (ft)	225	243	189	150	92	243	232	155	297	255	210	294
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	316	222	159	216	178	165
Average Queue (ft)	243	135	107	148	122	108
95th Queue (ft)	344	226	173	224	185	174
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	2				0	0
Queuing Penalty (veh)	6				1	0

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	220	242	207	161	115	257	232	155	304	266	195	283
Average Queue (ft)	98	141	111	86	22	149	82	85	210	170	69	169
95th Queue (ft)	201	229	180	153	80	244	220	146	288	255	160	270
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	315	278	188	256	202	186
Average Queue (ft)	214	124	94	142	115	95
95th Queue (ft)	300	217	168	235	179	160
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	0				0	0
Queuing Penalty (veh)	1				0	0

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	240	260	209	161	131	267	245	167	320	272	219	296
Average Queue (ft)	101	143	114	88	22	151	84	87	212	170	78	178
95th Queue (ft)	207	233	183	152	83	244	223	149	291	255	176	279
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	344	279	188	256	207	204
Average Queue (ft)	221	126	97	143	116	98
95th Queue (ft)	313	220	170	233	181	164
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	1				0	0
Queuing Penalty (veh)	2				0	0

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	18	6
Average Queue (ft)	6	1
95th Queue (ft)	25	9
Link Distance (ft)	282	370
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #2

Movement	EB
Directions Served	LR
Maximum Queue (ft)	18
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	282
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	30	6
Average Queue (ft)	2	0
95th Queue (ft)	15	4
Link Distance (ft)	282	370
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Gateway & Game Farm, Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	14	125	35	71	114	123	65	143	197
Average Queue (ft)	3	77	21	32	52	66	19	71	107
95th Queue (ft)	13	132	38	73	109	128	58	178	204
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		0			1			0	
Queuing Penalty (veh)		0			1			0	

Intersection: 17: Gateway & Game Farm, Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	29	141	49	69	126	119	56	155	143
Average Queue (ft)	3	69	19	20	45	59	15	54	73
95th Queue (ft)	16	121	41	46	102	115	43	118	134
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		1			1			0	
Queuing Penalty (veh)		0			1			0	

Intersection: 17: Gateway & Game Farm, All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	29	152	49	88	126	124	72	172	197
Average Queue (ft)	3	71	19	23	47	61	16	58	81
95th Queue (ft)	15	124	40	54	104	118	48	135	156
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		0			1			0	
Queuing Penalty (veh)		0			1			0	

Network Summary

Network wide Queuing Penalty, Interval #1: 10
Network wide Queuing Penalty, Interval #2: 3
Network wide Queuing Penalty, All Intervals: 5

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	77	74	48	123	79	58	81
Average Queue (ft)	32	48	22	76	32	36	50
95th Queue (ft)	72	88	54	124	84	56	90
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	66	100	62	116	63	59	101
Average Queue (ft)	27	38	20	58	20	30	47
95th Queue (ft)	59	79	55	98	52	52	82
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	81	100	66	125	88	64	109
Average Queue (ft)	28	40	21	62	23	32	48
95th Queue (ft)	62	82	55	106	62	53	84
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	39	62	44
Average Queue (ft)	5	36	28
95th Queue (ft)	25	60	45
Link Distance (ft)			531
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	140	115	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	44	67	49
Average Queue (ft)	0	4	32	26
95th Queue (ft)	4	22	52	39
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	50	68	49
Average Queue (ft)	0	4	33	27
95th Queue (ft)	3	23	54	41
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	18	5	12
Average Queue (ft)	3	1	2
95th Queue (ft)	17	8	14
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	11	25	19
Average Queue (ft)	0	2	1
95th Queue (ft)	7	13	11
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	29	25	19
Average Queue (ft)	1	2	1
95th Queue (ft)	10	12	11
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	213	235	160	146	100	111	25	64	173	138	89	191
Average Queue (ft)	125	175	103	90	35	54	4	35	141	86	46	110
95th Queue (ft)	231	245	169	153	101	131	38	71	182	167	86	219
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	211	222	114	153	71	57
Average Queue (ft)	163	142	78	98	47	26
95th Queue (ft)	238	233	131	160	79	61
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)						
Queuing Penalty (veh)						

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Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	210	246	168	157	110	124	65	89	199	162	82	194
Average Queue (ft)	104	156	102	93	32	43	3	33	124	75	42	98
95th Queue (ft)	202	229	162	148	85	102	36	73	183	155	74	193
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	216	224	150	184	91	72
Average Queue (ft)	148	126	79	89	48	24
95th Queue (ft)	216	203	138	155	81	56
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	235	258	174	158	125	135	66	89	199	167	93	207
Average Queue (ft)	109	161	102	92	32	46	3	34	128	78	43	101
95th Queue (ft)	210	234	164	149	90	110	37	72	185	158	77	200
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	229	238	150	189	96	75
Average Queue (ft)	152	130	79	91	48	25
95th Queue (ft)	222	211	136	157	80	57
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #1

Movement	SB
Directions Served	TR
Maximum Queue (ft)	6
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	293
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #2

Movement	SB
Directions Served	TR
Maximum Queue (ft)	5
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	293
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, All Intervals

Movement	SB
Directions Served	TR
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	293
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Gateway & Game Farm, Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	18	36	34	50	101	114	25	62	63
Average Queue (ft)	3	19	18	14	42	65	9	15	24
95th Queue (ft)	18	38	42	52	109	139	28	43	64
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					1				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm, Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	22	59	50	49	89	131	33	78	88
Average Queue (ft)	3	21	17	12	28	45	4	21	23
95th Queue (ft)	15	50	38	34	70	98	18	60	59
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm, All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	27	59	50	66	117	159	40	87	99
Average Queue (ft)	3	21	17	12	31	50	5	20	23
95th Queue (ft)	16	47	39	39	82	111	21	56	61
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, All Intervals: 0

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	62	120	102	218	153	40	147	11
Average Queue (ft)	30	71	44	137	77	26	102	2
95th Queue (ft)	66	118	100	221	147	48	164	17
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							3	
Queuing Penalty (veh)							2	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	57	138	105	175	148	52	162	83
Average Queue (ft)	20	61	33	98	47	23	84	4
95th Queue (ft)	50	110	84	152	102	44	143	50
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							1	
Queuing Penalty (veh)							0	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	68	151	129	221	158	52	173	83
Average Queue (ft)	22	64	36	107	54	24	88	3
95th Queue (ft)	54	113	88	176	117	45	149	44
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							2	
Queuing Penalty (veh)							1	

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	21	44	56	30
Average Queue (ft)	5	23	34	21
95th Queue (ft)	22	53	57	38
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	24	48	66	29
Average Queue (ft)	2	18	32	15
95th Queue (ft)	14	46	51	35
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	36	53	69	34
Average Queue (ft)	2	19	32	17
95th Queue (ft)	16	48	53	37
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	31	6	36
Average Queue (ft)	10	1	11
95th Queue (ft)	33	9	35
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	39	36
Average Queue (ft)	4	6
95th Queue (ft)	24	26
Link Distance (ft)	563	370
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	41	6	40
Average Queue (ft)	6	0	7
95th Queue (ft)	27	4	29
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	159	196	206	162	117	274	250	132	282	244	171	294
Average Queue (ft)	111	153	137	108	40	198	143	84	224	189	93	203
95th Queue (ft)	174	213	225	182	119	285	277	141	287	250	191	307
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	335	264	187	259	199	188
Average Queue (ft)	248	142	103	175	140	117
95th Queue (ft)	343	261	184	286	205	189
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330			205
Storage Blk Time (%)	2			0	0	0
Queuing Penalty (veh)	7			1	1	0

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	203	232	207	188	122	285	254	148	300	271	194	294
Average Queue (ft)	86	131	130	105	36	160	103	88	207	167	76	189
95th Queue (ft)	185	205	200	172	108	266	239	143	282	253	169	305
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	345	232	221	260	217	194
Average Queue (ft)	233	127	112	162	122	104
95th Queue (ft)	338	205	191	251	198	171
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	1				0	0
Queuing Penalty (veh)	5				1	0

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	203	236	226	196	131	300	269	151	305	271	199	307
Average Queue (ft)	92	137	132	106	37	169	113	87	211	172	80	192
95th Queue (ft)	185	209	207	175	111	274	251	143	284	255	175	306
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	365	292	228	288	222	200
Average Queue (ft)	237	130	110	165	126	107
95th Queue (ft)	339	221	189	261	201	176
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330			205
Storage Blk Time (%)	2			0	0	0
Queuing Penalty (veh)	5			0	1	0

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #1

Movement	EB
Directions Served	LR
Maximum Queue (ft)	18
Average Queue (ft)	3
95th Queue (ft)	16
Link Distance (ft)	282
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #2

Movement	EB
Directions Served	LR
Maximum Queue (ft)	18
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	282
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, All Intervals

Movement	EB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	282
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Gateway & Game Farm, Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	20	124	48	43	123	136	33	160	180
Average Queue (ft)	5	80	21	21	55	68	14	81	99
95th Queue (ft)	26	130	46	45	120	132	37	171	174
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		0			2			0	
Queuing Penalty (veh)		0			1			0	

Intersection: 17: Gateway & Game Farm, Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	37	140	49	61	124	155	58	169	174
Average Queue (ft)	4	75	19	23	43	64	16	62	80
95th Queue (ft)	23	128	39	50	103	127	44	137	150
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		1			1			0	
Queuing Penalty (veh)		1			1			0	

Intersection: 17: Gateway & Game Farm, All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	37	147	53	61	136	160	58	175	190
Average Queue (ft)	4	76	19	23	46	65	15	66	85
95th Queue (ft)	23	128	41	49	108	128	42	146	157
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		1			1			0	
Queuing Penalty (veh)		1			1			0	

Network Summary

Network wide Queuing Penalty, Interval #1: 13
Network wide Queuing Penalty, Interval #2: 7
Network wide Queuing Penalty, All Intervals: 9

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	69	86	68	118	54	58	87
Average Queue (ft)	44	58	34	72	28	38	53
95th Queue (ft)	74	96	75	115	57	66	91
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	74	103	101	128	84	57	111
Average Queue (ft)	37	46	30	65	24	31	46
95th Queue (ft)	74	89	79	111	66	49	80
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	82	111	110	140	86	66	119
Average Queue (ft)	39	49	31	67	25	33	48
95th Queue (ft)	75	92	78	112	64	54	83
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	45	72	43
Average Queue (ft)	8	40	28
95th Queue (ft)	41	72	44
Link Distance (ft)			531
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	140	115	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	29	63	57
Average Queue (ft)	0	4	35	28
95th Queue (ft)	4	22	55	45
Link Distance (ft)	130			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	51	78	60
Average Queue (ft)	0	5	36	28
95th Queue (ft)	3	28	60	45
Link Distance (ft)	130			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	24	12	18
Average Queue (ft)	4	3	3
95th Queue (ft)	24	17	19
Link Distance (ft)	563	129	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	22	35	12
Average Queue (ft)	2	4	1
95th Queue (ft)	15	22	7
Link Distance (ft)	563	129	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	33	36	24
Average Queue (ft)	2	4	1
95th Queue (ft)	17	21	11
Link Distance (ft)	563	129	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
6035 Peace Health Rehab Zone Change

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Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	T	R	L	T	T	TR	L	L
Maximum Queue (ft)	228	253	171	144	98	108	66	184	168	84	174	211
Average Queue (ft)	130	178	110	99	42	59	34	137	88	44	124	172
95th Queue (ft)	246	263	182	156	108	119	74	196	171	86	200	232
Link Distance (ft)			977	977	977		860	860	860			969
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640				360	300	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	SB	SB	SB	SB
Directions Served	TR	L	T	R	R
Maximum Queue (ft)	208	132	137	92	38
Average Queue (ft)	150	75	81	55	18
95th Queue (ft)	226	133	149	96	42
Link Distance (ft)	969		473	473	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		330		205	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report
6035 Peace Health Rehab Zone Change

05/30/2023

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	L	T	T	TR	L
Maximum Queue (ft)	194	243	180	159	128	141	69	86	209	182	136	191
Average Queue (ft)	105	167	109	94	34	48	5	35	140	92	47	92
95th Queue (ft)	200	236	178	155	95	120	41	74	206	185	102	185
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	224	254	150	174	90	71
Average Queue (ft)	144	137	72	83	47	23
95th Queue (ft)	210	228	127	141	83	58
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	L	T	T	TR	L
Maximum Queue (ft)	230	274	185	161	131	141	69	90	213	185	137	201
Average Queue (ft)	111	170	109	95	36	51	4	35	140	91	47	100
95th Queue (ft)	213	244	179	156	98	120	35	74	203	182	98	192
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	228	254	150	174	104	71
Average Queue (ft)	150	140	73	82	49	22
95th Queue (ft)	218	228	129	143	87	54
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, Int

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	6	6
Average Queue (ft)	1	1
95th Queue (ft)	9	9
Link Distance (ft)	199	293
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, Inte

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	6	17	18
Average Queue (ft)	0	1	1
95th Queue (ft)	5	11	9
Link Distance (ft)	199	370	293
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, All

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	12	17	24
Average Queue (ft)	0	1	1
95th Queue (ft)	6	9	9
Link Distance (ft)	199	370	293
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Gateway & Game Farm , Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	11	36	36	21	83	125	28	54	43
Average Queue (ft)	2	17	19	7	35	58	6	21	20
95th Queue (ft)	14	40	37	22	81	122	27	56	51
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm , Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	10	52	43	39	95	110	29	74	73
Average Queue (ft)	1	19	16	9	29	48	7	17	24
95th Queue (ft)	6	44	33	28	72	95	23	49	62
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm , All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	12	56	46	39	100	131	37	78	73
Average Queue (ft)	1	18	16	9	31	50	7	18	23
95th Queue (ft)	8	43	34	27	75	103	24	51	59
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 20: E Game Farm Rd & South Site Access, Interval #1

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	15
95th Queue (ft)	39
Link Distance (ft)	344
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 20: E Game Farm Rd & South Site Access, Interval #2

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	13
95th Queue (ft)	38
Link Distance (ft)	344
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 20: E Game Farm Rd & South Site Access, All Intervals

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	13
95th Queue (ft)	38
Link Distance (ft)	344
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, All Intervals: 0

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	60	142	117	204	168	44	159	138
Average Queue (ft)	26	85	52	140	91	28	118	26
95th Queue (ft)	73	147	120	214	176	44	181	145
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							4	
Queuing Penalty (veh)							3	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	61	124	109	198	162	62	168	160
Average Queue (ft)	21	64	39	117	64	28	86	10
95th Queue (ft)	52	112	89	187	141	49	151	92
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							1	
Queuing Penalty (veh)							1	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	70	145	127	205	173	62	171	200
Average Queue (ft)	23	69	42	123	70	28	94	14
95th Queue (ft)	58	123	98	196	152	48	162	107
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							2	
Queuing Penalty (veh)							1	

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	15	39	70	31
Average Queue (ft)	3	27	40	19
95th Queue (ft)	19	49	67	40
Link Distance (ft)	121			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	19	52	63	26
Average Queue (ft)	2	19	33	17
95th Queue (ft)	13	47	51	37
Link Distance (ft)	121			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	23	56	71	31
Average Queue (ft)	2	21	34	18
95th Queue (ft)	15	48	56	38
Link Distance (ft)	121			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	35	18	40
Average Queue (ft)	19	3	18
95th Queue (ft)	45	16	46
Link Distance (ft)	563	139	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	45	24	36
Average Queue (ft)	10	1	7
95th Queue (ft)	35	9	28
Link Distance (ft)	563	139	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	45	30	41
Average Queue (ft)	12	1	9
95th Queue (ft)	38	11	34
Link Distance (ft)	563	139	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	184	216	195	160	124	271	241	161	284	246	168	307
Average Queue (ft)	139	171	137	108	40	195	123	96	234	194	103	224
95th Queue (ft)	203	227	198	169	123	264	252	170	307	265	203	337
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												1

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	407	203	227	294	234	194
Average Queue (ft)	273	132	116	184	167	125
95th Queue (ft)	412	225	231	319	234	203
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	6			1	2	0
Queuing Penalty (veh)	18			2	8	0

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	186	223	201	173	136	285	245	149	316	267	192	314
Average Queue (ft)	101	142	134	109	35	177	122	82	225	182	81	197
95th Queue (ft)	189	214	195	172	112	280	261	135	304	263	177	307
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	363	276	222	271	257	226
Average Queue (ft)	243	141	105	161	162	121
95th Queue (ft)	343	238	182	248	245	208
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	2			0	2	0
Queuing Penalty (veh)	6			0	6	0

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	210	236	208	177	148	292	264	176	320	269	196	324
Average Queue (ft)	111	149	135	109	36	181	122	85	227	185	86	203
95th Queue (ft)	197	220	196	171	115	278	259	145	305	264	184	316
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	424	276	255	325	271	226
Average Queue (ft)	250	139	108	166	163	122
95th Queue (ft)	363	235	196	268	243	207
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	3			0	2	0
Queuing Penalty (veh)	9			1	7	0

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, Int

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	25	6	6
Average Queue (ft)	8	1	1
95th Queue (ft)	30	10	10
Link Distance (ft)	284	370	293
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, Inte

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	6	6	6
Average Queue (ft)	0	0	0
95th Queue (ft)	5	5	5
Link Distance (ft)	284	268	293
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, All

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	25	6	6	12
Average Queue (ft)	2	0	0	0
95th Queue (ft)	15	4	5	6
Link Distance (ft)	284	268	370	293
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Gateway & Game Farm, Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	11	43	53	41	95	112	46	103	108
Average Queue (ft)	2	15	25	21	37	53	16	37	60
95th Queue (ft)	11	43	54	41	93	115	44	95	124
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					1				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm, Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	24	43	43	57	99	133	62	113	138
Average Queue (ft)	2	14	19	22	31	46	14	34	53
95th Queue (ft)	11	36	37	48	78	103	43	91	111
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm, All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	25	52	61	57	102	139	62	128	152
Average Queue (ft)	2	14	21	22	33	48	14	35	55
95th Queue (ft)	11	38	42	47	82	106	43	92	114
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 21: E Game Farm Rd & South Site Access, Interval #1

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	26
95th Queue (ft)	45
Link Distance (ft)	332
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 21: E Game Farm Rd & South Site Access, Interval #2

Movement	SB
Directions Served	R
Maximum Queue (ft)	45
Average Queue (ft)	25
95th Queue (ft)	49
Link Distance (ft)	332
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 21: E Game Farm Rd & South Site Access, All Intervals

Movement	SB
Directions Served	R
Maximum Queue (ft)	45
Average Queue (ft)	25
95th Queue (ft)	48
Link Distance (ft)	332
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty, Interval #1: 32
Network wide Queuing Penalty, Interval #2: 14
Network wide Queuing Penalty, All Intervals: 18

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	61	90	74	151	92	54	105	9
Average Queue (ft)	40	56	39	81	37	38	55	1
95th Queue (ft)	70	99	80	134	90	60	103	13
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330			400			150	
Storage Blk Time (%)	0							
Queuing Penalty (veh)	0							

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	
Maximum Queue (ft)	77	97	90	150	110	58	99	
Average Queue (ft)	35	49	32	70	26	34	52	
95th Queue (ft)	67	95	73	124	75	55	91	
Link Distance (ft)		1139	1139	703	703			
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330			400			150	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	78	104	99	171	135	63	117	9
Average Queue (ft)	36	50	34	73	29	35	53	0
95th Queue (ft)	68	96	75	127	79	56	94	6
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330			400			150	
Storage Blk Time (%)	0							
Queuing Penalty (veh)	0							

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	16	66	39
Average Queue (ft)	2	36	25
95th Queue (ft)	13	64	43
Link Distance (ft)			531
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	140	115	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	46	67	48
Average Queue (ft)	0	4	34	26
95th Queue (ft)	4	25	55	39
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	46	75	53
Average Queue (ft)	0	4	34	26
95th Queue (ft)	3	23	58	40
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	24	12	6
Average Queue (ft)	3	1	2
95th Queue (ft)	19	9	14
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	23	31	25
Average Queue (ft)	1	2	1
95th Queue (ft)	13	15	11
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	29	31	25
Average Queue (ft)	2	2	1
95th Queue (ft)	14	14	11
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	244	265	208	204	157	151	73	81	206	172	106	199
Average Queue (ft)	160	204	137	126	61	71	19	46	155	110	49	127
95th Queue (ft)	267	289	221	209	145	156	87	87	210	196	105	225
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	228	294	162	158	89	62
Average Queue (ft)	173	183	98	100	56	26
95th Queue (ft)	256	310	174	169	92	64
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	201	240	214	176	135	170	158	82	217	177	99	189
Average Queue (ft)	105	159	117	99	40	50	10	33	140	84	44	104
95th Queue (ft)	203	233	187	163	110	123	68	69	205	165	81	202
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	222	278	156	184	84	58
Average Queue (ft)	157	143	80	93	44	23
95th Queue (ft)	230	237	142	160	74	51
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	254	269	227	206	163	177	159	90	223	190	122	207
Average Queue (ft)	118	170	122	106	45	55	12	36	143	90	45	109
95th Queue (ft)	226	253	197	177	120	133	73	75	207	174	88	209
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	238	298	173	184	89	67
Average Queue (ft)	161	153	84	95	47	23
95th Queue (ft)	238	259	151	162	80	55
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #2

Movement	SB
Directions Served	TR
Maximum Queue (ft)	19
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	293
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, All Intervals

Movement	SB
Directions Served	TR
Maximum Queue (ft)	19
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	293
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Gateway & Game Farm , Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	5	40	43	22	85	128	36	64	78
Average Queue (ft)	1	20	18	11	36	63	14	31	30
95th Queue (ft)	7	43	42	26	92	128	42	70	78
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					1				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm , Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	14	59	52	39	93	141	41	49	66
Average Queue (ft)	1	18	16	11	33	52	8	17	22
95th Queue (ft)	8	43	38	31	78	105	27	46	55
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm , All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	14	59	60	39	110	154	57	64	79
Average Queue (ft)	1	19	17	11	33	54	9	21	24
95th Queue (ft)	8	43	39	30	82	112	31	53	62
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Network Summary

Network wide Queuing Penalty, Interval #1: 1
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, All Intervals: 0

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	51	157	154	273	263	52	168	140
Average Queue (ft)	32	99	68	166	120	32	125	20
95th Queue (ft)	58	171	148	283	254	56	182	129
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							6	
Queuing Penalty (veh)							4	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	64	139	114	198	166	44	165	128
Average Queue (ft)	20	68	43	121	63	22	96	7
95th Queue (ft)	54	121	94	183	130	44	153	65
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							1	0
Queuing Penalty (veh)							1	0

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	64	166	158	275	263	61	173	229
Average Queue (ft)	23	75	49	132	77	25	103	10
95th Queue (ft)	56	137	111	217	173	48	164	84
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							2	0
Queuing Penalty (veh)							2	0

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	24	64	66	25
Average Queue (ft)	6	27	44	18
95th Queue (ft)	24	67	74	36
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	28	39	63	25
Average Queue (ft)	2	18	34	16
95th Queue (ft)	15	43	54	35
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	35	68	68	25
Average Queue (ft)	3	20	36	17
95th Queue (ft)	18	50	60	36
Link Distance (ft)	316			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	45	6	30
Average Queue (ft)	8	2	16
95th Queue (ft)	35	14	41
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	35	35
Average Queue (ft)	5	6
95th Queue (ft)	25	26
Link Distance (ft)	563	370
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	50	6	36
Average Queue (ft)	6	0	8
95th Queue (ft)	28	6	31
Link Distance (ft)	563	316	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	243	269	250	200	337	517	498	202	385	331	256	325
Average Queue (ft)	167	203	183	150	114	365	329	124	302	265	177	324
95th Queue (ft)	288	312	254	215	379	545	506	212	401	365	280	327
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)					0							
Queuing Penalty (veh)					0							
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)						1	0			0		27
Queuing Penalty (veh)						4	0			0		131

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	984	984	278	380	308	220
Average Queue (ft)	966	925	171	252	187	163
95th Queue (ft)	1070	1225	304	433	317	242
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)	80	62		1		
Queuing Penalty (veh)	0	0		5		
Storage Bay Dist (ft)			330			205
Storage Blk Time (%)	78			4	3	2
Queuing Penalty (veh)	378			10	13	8

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	232	274	218	174	284	419	380	159	327	280	160	325
Average Queue (ft)	66	115	98	67	25	167	104	76	182	139	49	324
95th Queue (ft)	165	208	171	136	167	312	272	139	262	236	114	327
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)										0		20
Queuing Penalty (veh)										0		61

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	984	985	202	258	198	182
Average Queue (ft)	984	981	91	135	107	86
95th Queue (ft)	987	1036	163	223	168	150
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)	88	69				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			330			205
Storage Blk Time (%)	74			0	0	0
Queuing Penalty (veh)	222			0	0	0

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	255	288	250	211	337	517	508	211	385	335	256	325
Average Queue (ft)	91	136	118	87	46	215	158	88	211	170	80	324
95th Queue (ft)	217	251	213	177	237	423	392	165	331	302	198	327
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)					0							
Queuing Penalty (veh)					0							
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)						0	0			0		22
Queuing Penalty (veh)						1	0			0		79

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	984	985	278	380	311	226
Average Queue (ft)	980	967	111	164	126	105
95th Queue (ft)	1032	1127	217	307	227	192
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)	86	67		0		
Queuing Penalty (veh)	0	0		1		
Storage Bay Dist (ft)			330			205
Storage Blk Time (%)	75			1	1	0
Queuing Penalty (veh)	261			3	4	2

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #1

Movement	EB
Directions Served	LR
Maximum Queue (ft)	18
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	282
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, Interval #2

Movement	EB
Directions Served	LR
Maximum Queue (ft)	18
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	282
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot, All Intervals

Movement	EB
Directions Served	LR
Maximum Queue (ft)	24
Average Queue (ft)	2
95th Queue (ft)	13
Link Distance (ft)	282
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Gateway & Game Farm, Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	54	174	292	102	203	209	157	399	399
Average Queue (ft)	11	135	112	51	99	116	62	234	264
95th Queue (ft)	46	202	299	113	213	216	148	452	453
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)								3	5
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		13		1	9			1	
Queuing Penalty (veh)		17		3	9			3	

Intersection: 17: Gateway & Game Farm, Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	36	148	118	108	158	167	64	228	250
Average Queue (ft)	4	69	22	27	47	64	19	62	92
95th Queue (ft)	21	123	74	69	117	133	51	156	179
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)								0	
Queuing Penalty (veh)								0	
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		1		0	2			0	
Queuing Penalty (veh)		1		0	1			0	

Intersection: 17: Gateway & Game Farm, All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	64	174	294	114	215	217	157	399	399
Average Queue (ft)	6	85	44	33	60	76	29	103	134
95th Queue (ft)	29	159	164	84	150	163	88	285	304
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)								1	1
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		4		0	3			0	
Queuing Penalty (veh)		5		1	3			1	

Network Summary

Network wide Queuing Penalty, Interval #1: 585
Network wide Queuing Penalty, Interval #2: 286
Network wide Queuing Penalty, All Intervals: 361

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	74	77	68	115	65	75	109
Average Queue (ft)	52	49	33	78	26	39	64
95th Queue (ft)	78	79	75	123	62	70	112
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	86	96	86	153	107	64	120
Average Queue (ft)	41	48	32	76	28	36	52
95th Queue (ft)	78	89	71	129	77	59	99
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							0
Queuing Penalty (veh)							0

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	L
Maximum Queue (ft)	87	96	87	156	110	80	125
Average Queue (ft)	44	48	32	76	28	37	55
95th Queue (ft)	79	87	72	128	73	62	103
Link Distance (ft)		1139	1139	703	703		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	330					400	150
Storage Blk Time (%)							0
Queuing Penalty (veh)							0

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	45	59	57
Average Queue (ft)	9	41	34
95th Queue (ft)	40	62	59
Link Distance (ft)			531
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	140	115	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	33	60	62
Average Queue (ft)	0	6	37	31
95th Queue (ft)	3	27	56	50
Link Distance (ft)	130			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	50	60	69
Average Queue (ft)	0	6	38	32
95th Queue (ft)	3	30	58	53
Link Distance (ft)	130			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	12	17	6
Average Queue (ft)	3	8	1
95th Queue (ft)	16	32	10
Link Distance (ft)	563	129	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	19	25	25
Average Queue (ft)	2	3	1
95th Queue (ft)	13	16	12
Link Distance (ft)	563	129	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	25	36	31
Average Queue (ft)	2	4	1
95th Queue (ft)	14	21	12
Link Distance (ft)	563	129	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	252	273	166	180	138	126	43	86	198	170	90	263
Average Queue (ft)	157	213	113	120	61	67	8	39	147	94	54	125
95th Queue (ft)	265	303	173	197	138	131	46	81	207	177	92	269
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	290	227	156	158	83	52
Average Queue (ft)	180	173	84	113	46	27
95th Queue (ft)	305	255	162	178	78	58
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	1					
Queuing Penalty (veh)	3					

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	249	301	202	167	127	129	86	90	212	175	114	232
Average Queue (ft)	128	186	113	100	40	50	6	35	142	84	46	108
95th Queue (ft)	226	283	185	163	106	121	46	77	202	164	91	215
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	266	298	178	168	71	57
Average Queue (ft)	158	147	87	86	43	24
95th Queue (ft)	236	253	158	145	69	55
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	272	306	202	182	144	140	92	91	221	185	119	282
Average Queue (ft)	135	193	113	104	45	54	6	36	143	86	48	112
95th Queue (ft)	237	290	182	173	115	124	46	78	203	167	92	230
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)												0
Queuing Penalty (veh)												0

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	T	R	R
Maximum Queue (ft)	315	301	187	177	88	67
Average Queue (ft)	163	153	86	92	44	25
95th Queue (ft)	256	255	159	156	72	56
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			330		205	
Storage Blk Time (%)	0					
Queuing Penalty (veh)	1					

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, Int

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	6	12	6
Average Queue (ft)	1	2	1
95th Queue (ft)	9	13	10
Link Distance (ft)	199	370	293
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, Inte

Movement	EB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	6	6
Average Queue (ft)	0	0
95th Queue (ft)	5	5
Link Distance (ft)	284	293
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, All

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	6	6	12	12
Average Queue (ft)	0	0	0	0
95th Queue (ft)	4	4	6	6
Link Distance (ft)	284	199	370	293
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Gateway & Game Farm, Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	6	31	40	26	126	141	28	54	55
Average Queue (ft)	1	22	19	13	49	71	7	22	25
95th Queue (ft)	8	37	41	33	126	143	25	53	62
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					1				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm, Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	16	48	40	54	83	143	58	62	71
Average Queue (ft)	1	20	16	11	33	56	12	18	20
95th Queue (ft)	8	43	33	36	77	116	39	48	54
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 17: Gateway & Game Farm, All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	20	48	45	54	126	165	58	62	80
Average Queue (ft)	1	20	17	12	37	60	11	19	21
95th Queue (ft)	8	42	35	36	92	123	36	49	56
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 20: E Game Farm Rd & South Site Access, Interval #1

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	16
95th Queue (ft)	41
Link Distance (ft)	344
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 20: E Game Farm Rd & South Site Access, Interval #2

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	344
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 20: E Game Farm Rd & South Site Access, All Intervals

Movement	SB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	15
95th Queue (ft)	39
Link Distance (ft)	344
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty, Interval #1: 3
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, All Intervals: 1

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	67	162	136	239	204	54	168	159
Average Queue (ft)	37	98	61	157	112	34	120	23
95th Queue (ft)	83	164	134	244	206	58	184	148
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							5	
Queuing Penalty (veh)							4	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	88	178	149	204	177	54	167	51
Average Queue (ft)	29	77	48	119	67	28	97	2
95th Queue (ft)	73	140	110	180	139	52	156	42
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							1	
Queuing Penalty (veh)							1	

Intersection: 1: Beltline/MLK Pkwy & Game Farm Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	R	L	R
Maximum Queue (ft)	88	189	171	251	219	55	170	170
Average Queue (ft)	31	82	51	129	78	29	103	7
95th Queue (ft)	76	148	117	202	162	54	165	79
Link Distance (ft)		1139	1139	703	703			531
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	330					400	150	
Storage Blk Time (%)							2	
Queuing Penalty (veh)							2	

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #1

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	32	51	85	31
Average Queue (ft)	7	27	48	21
95th Queue (ft)	30	53	87	39
Link Distance (ft)	121			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, Interval #2

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	35	60	62	31
Average Queue (ft)	3	19	35	18
95th Queue (ft)	19	49	56	38
Link Distance (ft)	121			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Game Farm Rd & E Game Farm Rd/Deadmond Ferry Rd, All Intervals

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	47	68	89	35
Average Queue (ft)	4	21	38	19
95th Queue (ft)	22	50	66	38
Link Distance (ft)	121			531
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		140	115	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #1

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	54	45	40
Average Queue (ft)	19	10	17
95th Queue (ft)	54	45	45
Link Distance (ft)	563	139	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, Interval #2

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	35	6	31
Average Queue (ft)	6	1	8
95th Queue (ft)	27	8	30
Link Distance (ft)	563	139	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Driveway/Maple Island Rd & E Game Farm Rd, All Intervals

Movement	EB	WB	SB
Directions Served	LTR	ULTR	LTR
Maximum Queue (ft)	54	45	40
Average Queue (ft)	9	3	10
95th Queue (ft)	36	22	35
Link Distance (ft)	563	139	370
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Beltline & Gateway, Interval #1

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	322	349	268	235	174	530	484	241	352	301	227	325
Average Queue (ft)	223	254	192	166	119	373	325	153	286	229	152	324
95th Queue (ft)	345	375	284	243	188	583	538	257	360	302	234	328
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)										0		22
Queuing Penalty (veh)										0		107

Intersection: 10: Beltline & Gateway, Interval #1

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	984	984	300	330	263	208
Average Queue (ft)	972	952	171	240	173	156
95th Queue (ft)	1052	1166	309	371	268	235
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)	81	65		0		
Queuing Penalty (veh)	0	0		0		
Storage Bay Dist (ft)			330			205
Storage Blk Time (%)	82			2	2	1
Queuing Penalty (veh)	397			4	10	6

Intersection: 10: Beltline & Gateway, Interval #2

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	223	255	196	178	110	352	316	150	302	271	219	325
Average Queue (ft)	76	128	104	74	16	165	95	83	189	150	57	324
95th Queue (ft)	170	203	175	142	67	295	267	142	271	245	150	327
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)						0				0	0	20
Queuing Penalty (veh)						0				0	0	60

Intersection: 10: Beltline & Gateway, Interval #2

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	984	984	210	231	239	206
Average Queue (ft)	984	984	93	145	108	85
95th Queue (ft)	987	987	170	221	190	158
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)	89	69				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			330			205
Storage Blk Time (%)	75				0	0
Queuing Penalty (veh)	223				1	1

Intersection: 10: Beltline & Gateway, All Intervals

Movement	EB	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	T	R	R	UL	T	T	TR	L
Maximum Queue (ft)	322	349	268	235	174	537	484	241	360	309	257	325
Average Queue (ft)	112	158	125	96	41	216	150	100	213	169	80	324
95th Queue (ft)	256	284	224	192	132	427	395	188	318	275	192	327
Link Distance (ft)			977	977	977			860	860	860		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	480	480				640	640				360	300
Storage Blk Time (%)						0				0	0	21
Queuing Penalty (veh)						0				0	0	72

Intersection: 10: Beltline & Gateway, All Intervals

Movement	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	UL	T	R	R
Maximum Queue (ft)	984	984	300	330	284	227
Average Queue (ft)	981	976	112	168	124	103
95th Queue (ft)	1021	1083	222	282	221	192
Link Distance (ft)	969	969		473	473	
Upstream Blk Time (%)	87	68		0		
Queuing Penalty (veh)	0	0		0		
Storage Bay Dist (ft)			330			205
Storage Blk Time (%)	77			0	1	0
Queuing Penalty (veh)	267			1	3	2

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, Int

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	18	6	6	6
Average Queue (ft)	5	1	1	1
95th Queue (ft)	21	9	9	10
Link Distance (ft)	284	268	370	293
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, Inte

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	17	6	6
Average Queue (ft)	1	0	0
95th Queue (ft)	8	5	5
Link Distance (ft)	284	268	293
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Maple Island Rd /Maple Island Rd & Business Center Parking Lot/North Site Access, All

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	24	12	6	12
Average Queue (ft)	2	0	0	0
95th Queue (ft)	13	6	4	6
Link Distance (ft)	284	268	370	293
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Gateway & Game Farm, Interval #1

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	23	172	196	114	157	163	124	286	294
Average Queue (ft)	9	138	81	57	83	107	54	170	216
95th Queue (ft)	29	193	239	115	159	181	126	320	353
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)								0	1
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		11		1	6			2	
Queuing Penalty (veh)		16		5	6			3	

Intersection: 17: Gateway & Game Farm, Interval #2

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	20	146	130	85	151	173	91	163	206
Average Queue (ft)	4	78	24	27	51	71	22	55	95
95th Queue (ft)	16	135	78	61	117	138	63	125	180
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		0		0	1				
Queuing Penalty (veh)		0		0	1				

Intersection: 17: Gateway & Game Farm, All Intervals

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	UL	T	TR	L	T	TR
Maximum Queue (ft)	28	172	201	114	160	178	132	286	296
Average Queue (ft)	5	93	38	34	58	80	30	83	124
95th Queue (ft)	20	163	137	80	131	153	85	208	256
Link Distance (ft)	250		924		473	473		384	384
Upstream Blk Time (%)								0	0
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)		150		98			224		
Storage Blk Time (%)		3		0	3			0	
Queuing Penalty (veh)		4		1	2			1	

Intersection: 21: E Game Farm Rd & South Site Access, Interval #1

Movement	SB
Directions Served	R
Maximum Queue (ft)	44
Average Queue (ft)	30
95th Queue (ft)	50
Link Distance (ft)	332
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 21: E Game Farm Rd & South Site Access, Interval #2

Movement	SB
Directions Served	R
Maximum Queue (ft)	40
Average Queue (ft)	26
95th Queue (ft)	46
Link Distance (ft)	332
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 21: E Game Farm Rd & South Site Access, All Intervals

Movement	SB
Directions Served	R
Maximum Queue (ft)	44
Average Queue (ft)	27
95th Queue (ft)	48
Link Distance (ft)	332
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty, Interval #1: 557
Network wide Queuing Penalty, Interval #2: 287
Network wide Queuing Penalty, All Intervals: 355

PEACEHEALTH REHABILITATION HOSPITAL

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	6	210	0	1	150	30	0	0	0	95	0	33
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	6	210	0	1	150	30	0	0	0	95	0	33
Entry Volume	216			181			0			128		
Entry Lane Volume (adj)	216			181			0			128		
Exiting Flow Rates	183			305			1			36		
Conflicting Flow	96			6			311			151		
Entry Capacity	1239			1327			1051			1188		
v/c ratio	0.17			0.14			0.00			0.11		
Delay	8.5			3.1			8.4			8.4		
LOS												
95th Percentile Queue (veh)	0.6			0.5			0.0			0.4		
Intersection Delay		7.1										
Intersection v/c		0.15										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	6	0	37	0	0	0	0	36	0	0	92	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	6	0	37	0	0	0	0	36	0	0	92	1
Entry Volume	43			0			36			93		
Entry Lane Volume (adj)	43			0			36			93		
Exiting Flow Rates	1			0			129			42		
Conflicting Flow	92			42			6			0		
Entry Capacity	1243			1291			1327			1333		
v/c ratio	0.03			0.00			0.03			0.07		
Delay	8.0			2.8			7.8			7.9		
LOS												
95th Percentile Queue (veh)	0.1			0.0			0.1			0.2		
Intersection Delay		6.6										
Intersection v/c		0.05										

Intersection Maple @ Site Acces

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Volume	6	0	37	45	0	18	0	36	16	13	92	1
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	6	0	37	45	0	18	0	36	16	13	92	1
Entry Volume	43			63			52			106		
Entry Lane Volume (adj)	43			63			52			106		
Exiting Flow Rates	1			29			174			60		
Conflicting Flow	150			42			19			45		
Entry Capacity	1189			1291			1314			1288		
v/c ratio	0.04			0.05			0.04			0.08		
Delay	8.1			2.9			7.9			8.0		
LOS												
95th Percentile Queue (veh)	0.1			0.2			0.1			0.3		
Intersection Delay		6.7										
Intersection v/c		0.06										

Intersection Maple @ Game Farm

	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	U turn	Through	Right	Left	Through	Right	Left	Through	Right
Volume	22	210	0	46	245	30	0	0	0	118	0	55
% HV	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Demand Volume	22	210	0	46	245	30	0	0	0	118	0	55
Entry Volume	232			321			0			173		
Entry Lane Volume (adj)	232			321			0			173		
Exiting Flow Rates	300			328			46			52		
Conflicting Flow	164			22			350			291		
Entry Capacity	1176			1311			1020			1067		
v/c ratio	0.20			0.24			0.00			0.16		
Delay	8.8			3.6			8.5			9.0		
LOS												
95th Percentile Queue (veh)	0.7			1.0			0.0			0.6		
Intersection Delay		7.5										
Intersection v/c		0.21										

HCM Signalized Intersection Capacity Analysis
 1: Beltline/MLK Pkwy & Game Farm Rd

10/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	↗
Traffic Volume (vph)	32	844	882	135	289	63
Future Volume (vph)	32	844	882	135	289	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3610	3610	1599	1770	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3610	3610	1599	1770	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	34	888	928	142	304	66
RTOR Reduction (vph)	0	0	0	88	0	50
Lane Group Flow (vph)	34	888	928	54	304	16
Heavy Vehicles (%)	8%	0%	0%	1%	2%	0%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	6.1	28.6	17.1	17.1	10.7	10.7
Effective Green, g (s)	7.5	30.0	18.5	18.5	12.1	12.1
Actuated g/C Ratio	0.15	0.62	0.38	0.38	0.25	0.25
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	257	2223	1371	607	439	401
v/s Ratio Prot	0.02	c0.25	c0.26		c0.17	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.13	0.40	0.68	0.09	0.69	0.04
Uniform Delay, d1	17.8	4.8	12.6	9.7	16.6	13.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.2	1.5	0.1	4.3	0.0
Delay (s)	18.0	4.9	14.1	9.8	20.9	13.9
Level of Service	B	A	B	A	C	B
Approach Delay (s)		5.4	13.5		19.7	
Approach LOS		A	B		B	

Intersection Summary

HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	48.7	Sum of lost time (s)	10.6
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

10/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↙	↑↑	↑↑	↘	↙	↘	
Traffic Volume (veh/h)	32	844	882	135	289	63	
Future Volume (veh/h)	32	844	882	135	289	63	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1781	1900	1900	1885	1870	1900	
Adj Flow Rate, veh/h	34	888	928	142	304	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	8	0	0	1	2	0	
Cap, veh/h	200	2229	1490	659	425		
Arrive On Green	0.12	0.62	0.41	0.41	0.24	0.00	
Sat Flow, veh/h	1697	3705	3705	1598	1781	1610	
Grp Volume(v), veh/h	34	888	928	142	304	0	
Grp Sat Flow(s),veh/h/ln	1697	1805	1805	1598	1781	1610	
Q Serve(g_s), s	0.8	5.7	9.3	2.6	7.2	0.0	
Cycle Q Clear(g_c), s	0.8	5.7	9.3	2.6	7.2	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	200	2229	1490	659	425		
V/C Ratio(X)	0.17	0.40	0.62	0.22	0.71		
Avail Cap(c_a), veh/h	333	2596	1573	696	598		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	18.2	4.5	10.7	8.7	16.0	0.0	
Incr Delay (d2), s/veh	0.3	0.2	0.9	0.2	1.8	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	0.8	2.6	0.7	2.8	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	18.5	4.6	11.5	8.9	17.9	0.0	
LnGrp LOS	B	A	B	A	B		
Approach Vol, veh/h		922	1070		304	A	
Approach Delay, s/veh		5.1	11.2		17.9		
Approach LOS		A	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				32.3	13.6	9.4	22.9
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 32	14.0	* 7.6	* 19
Max Q Clear Time (g_c+I1), s				7.7	9.2	2.8	11.3
Green Ext Time (p_c), s				16.1	0.6	0.0	6.2
Intersection Summary							
HCM 6th Ctrl Delay			9.6				
HCM 6th LOS			A				
Notes							
User approved pedestrian interval to be less than phase max green.							
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.							
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.							

Intersection						
Int Delay, s/veh	5.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	50	257	103	42	139	40
Future Vol, veh/h	50	257	103	42	139	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	1	0
Mvmt Flow	53	271	108	44	146	42

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	324	0	449	189
Stage 1	-	-	-	-	189	-
Stage 2	-	-	-	-	260	-
Critical Hdwy	-	-	4.11	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.209	-	3.509	3.3
Pot Cap-1 Maneuver	-	-	1241	-	569	858
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1241	-	519	858
Mov Cap-2 Maneuver	-	-	-	-	519	-
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.8	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	519	858	-	-	1241	-
HCM Lane V/C Ratio	0.282	0.049	-	-	0.087	-
HCM Control Delay (s)	14.6	9.4	-	-	8.2	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1.1	0.2	-	-	0.3	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	306	181	0	0	0
Future Vol, veh/h	0	306	181	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	322	191	0	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-



















Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

HCM Signalized Intersection Capacity Analysis

10: Beltline & Gateway

10/18/2023

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	347	615	965	2	145	1509	368	0	0	0	2	191
Future Volume (vph)	347	615	965	2	145	1509	368	0	0	0	2	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8						4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91						1.00
Frt	1.00	1.00	0.85		1.00	0.97						1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00						0.95
Satd. Flow (prot)	3502	5187	2842		1805	5035						1805
Flt Permitted	0.95	1.00	1.00		0.39	1.00						0.95
Satd. Flow (perm)	3502	5187	2842		750	5035						1805
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	365	647	1016	2	153	1588	387	0	0	0	2	201
RTOR Reduction (vph)	0	0	868	0	0	31	0	0	0	0	0	0
Lane Group Flow (vph)	365	647	148	0	155	1944	0	0	0	0	0	203
Turn Type	Prot	NA	Perm	custom	Prot	NA					custom	Prot
Protected Phases	7	4			3	8						1
Permitted Phases			4	3							1	
Actuated Green, G (s)	19.8	20.5	20.5		80.0	80.7						34.6
Effective Green, g (s)	21.2	21.9	21.9		81.4	82.1						35.1
Actuated g/C Ratio	0.14	0.15	0.15		0.54	0.55						0.23
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2						4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0						2.5
Lane Grp Cap (vph)	494	757	414		407	2755						422
v/s Ratio Prot	0.10	c0.12				c0.39						
v/s Ratio Perm			0.05		0.21							0.11
v/c Ratio	0.74	0.85	0.36		0.38	0.71						0.48
Uniform Delay, d1	61.7	62.5	57.7		19.8	25.0						49.6
Progression Factor	1.00	1.00	1.00		1.35	0.57						1.00
Incremental Delay, d2	5.4	11.8	2.4		0.4	1.2						0.6
Delay (s)	67.1	74.3	60.1		27.0	15.4						50.2
Level of Service	E	E	E		C	B						D
Approach Delay (s)		65.9				16.3		0.0				
Approach LOS		E				B		A				
Intersection Summary												
HCM 2000 Control Delay			44.8			HCM 2000 Level of Service		D				
HCM 2000 Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)		11.6				
Intersection Capacity Utilization			75.0%			ICU Level of Service		D				
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

10/18/2023



Movement	SBT	SBR
Lane Configurations	↑	↑↑
Traffic Volume (vph)	337	758
Future Volume (vph)	337	758
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	1.00	0.88
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1900	2842
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1900	2842
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	355	798
RTOR Reduction (vph)	0	302
Lane Group Flow (vph)	355	496
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	34.6	34.6
Effective Green, g (s)	35.1	35.1
Actuated g/C Ratio	0.23	0.23
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.5	2.5
Lane Grp Cap (vph)	444	665
v/s Ratio Prot	c0.19	
v/s Ratio Perm		0.17
v/c Ratio	0.80	0.75
Uniform Delay, d1	54.1	53.3
Progression Factor	1.00	1.00
Incremental Delay, d2	9.4	4.3
Delay (s)	63.6	57.6
Level of Service	E	E
Approach Delay (s)	58.1	
Approach LOS	E	
Intersection Summary		

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

10/18/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕		↕	↕			↕	↕		↕	↕
Traffic Volume (vph)	4	2	33	236	4	102	14	66	575	58	146	1003
Future Volume (vph)	4	2	33	236	4	102	14	66	575	58	146	1003
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.86			1.00	0.99		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1673		1805	1625			1805	3560		1805	3607
Flt Permitted		0.95		0.62	1.00			0.16	1.00		0.32	1.00
Satd. Flow (perm)		1596		1175	1625			303	3560		606	3607
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	2	35	248	4	107	15	69	605	61	154	1056
RTOR Reduction (vph)	0	33	0	0	76	0	0	0	9	0	0	1
Lane Group Flow (vph)	0	8	0	248	35	0	0	84	657	0	154	1061
Turn Type	Perm	NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		3.3		16.9	16.9			29.8	24.6		30.8	25.1
Effective Green, g (s)		3.3		17.4	17.4			30.8	25.1		31.8	25.6
Actuated g/C Ratio		0.05		0.29	0.29			0.51	0.41		0.52	0.42
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		86		441	465			294	1472		439	1521
v/s Ratio Prot				c0.09	0.02			0.03	0.18		c0.04	c0.29
v/s Ratio Perm		0.00		c0.07				0.12			0.15	
v/c Ratio		0.09		0.56	0.07			0.29	0.45		0.35	0.70
Uniform Delay, d1		27.3		18.0	15.8			9.0	12.8		7.8	14.4
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3		1.3	0.0			0.4	0.3		0.4	1.5
Delay (s)		27.6		19.3	15.8			9.4	13.1		8.1	15.9
Level of Service		C		B	B			A	B		A	B
Approach Delay (s)		27.6			18.3				12.7			14.9
Approach LOS		C			B				B			B

Intersection Summary

HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

10/18/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	6
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis

20: Hutton & Beltline

10/18/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗↗		↗	↗↗		↗↗	↗		↗	↗	↗
Traffic Volume (vph)	41	686	81	50	924	50	998	10	93	50	20	50
Future Volume (vph)	41	686	81	50	924	50	998	10	93	50	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.95		0.97	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.87		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	5105		1805	3582		3502	1644		1805	1900	1615
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1805	5105		1805	3582		3502	1644		1805	1900	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	43	722	85	53	973	53	1051	11	98	53	21	53
RTOR Reduction (vph)	0	8	0	0	2	0	0	66	0	0	0	51
Lane Group Flow (vph)	43	799	0	53	1024	0	1051	43	0	53	21	2
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	7.0	66.0		8.1	67.1		52.1	49.1		8.0	5.0	5.0
Effective Green, g (s)	8.4	67.4		9.5	68.5		52.1	49.1		8.0	5.0	5.0
Actuated g/C Ratio	0.06	0.45		0.06	0.46		0.35	0.33		0.05	0.03	0.03
Clearance Time (s)	5.4	5.4		5.4	5.4		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	2.5	4.0		2.5	4.0		2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	101	2293		114	1635		1216	538		96	63	53
v/s Ratio Prot	0.02	0.16		c0.03	c0.29		c0.30	0.03		0.03	c0.01	
v/s Ratio Perm												0.00
v/c Ratio	0.43	0.35		0.46	0.63		0.86	0.08		0.55	0.33	0.03
Uniform Delay, d1	68.5	27.0		67.8	31.0		45.7	34.8		69.3	70.9	70.2
Progression Factor	1.56	0.12		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.3	0.3		2.2	1.8		6.5	0.0		5.4	2.3	0.2
Delay (s)	107.8	3.6		70.0	32.8		52.2	34.9		74.7	73.1	70.3
Level of Service	F	A		E	C		D	C		E	E	E
Approach Delay (s)		8.8			34.7			50.6			72.6	
Approach LOS		A			C			D			E	
























Intersection Summary

HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 20: Hutton & Beltline

10/18/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	41	686	81	50	924	50	998	10	93	50	20	50
Future Volume (veh/h)	41	686	81	50	924	50	998	10	93	50	20	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	722	85	53	973	53	1051	11	98	53	21	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	2201	257	85	1652	90	1169	56	501	69	88	74
Arrive On Green	0.08	0.93	0.92	0.05	0.47	0.47	0.33	0.34	0.34	0.04	0.05	0.05
Sat Flow, veh/h	1810	4709	550	1810	3481	190	3510	165	1470	1810	1900	1610
Grp Volume(v), veh/h	43	529	278	53	504	522	1051	0	109	53	21	53
Grp Sat Flow(s),veh/h/ln	1810	1729	1801	1810	1805	1866	1755	0	1635	1810	1900	1610
Q Serve(g_s), s	3.4	2.2	2.4	4.3	30.6	30.6	42.8	0.0	7.1	4.4	1.6	4.9
Cycle Q Clear(g_c), s	3.4	2.2	2.4	4.3	30.6	30.6	42.8	0.0	7.1	4.4	1.6	4.9
Prop In Lane	1.00		0.31	1.00		0.10	1.00		0.90	1.00		1.00
Lane Grp Cap(c), veh/h	72	1616	842	85	857	886	1169	0	558	69	88	74
V/C Ratio(X)	0.60	0.33	0.33	0.62	0.59	0.59	0.90	0.00	0.20	0.77	0.24	0.71
Avail Cap(c_a), veh/h	109	1616	842	145	857	886	1381	0	611	145	114	97
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	2.7	2.9	70.2	28.7	28.8	47.6	0.0	34.9	71.5	69.0	70.6
Incr Delay (d2), s/veh	3.3	0.3	0.6	5.4	3.0	2.9	7.1	0.0	0.1	12.6	1.0	13.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.7	0.8	2.1	13.5	14.0	20.0	0.0	2.9	2.3	0.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.2	3.0	3.5	75.6	31.7	31.7	54.8	0.0	35.0	84.1	70.0	83.8
LnGrp LOS	E	A	A	E	C	C	D	A	D	F	E	F
Approach Vol, veh/h		850			1079			1160				127
Approach Delay, s/veh		6.6			33.8			52.9				81.6
Approach LOS		A			C			D				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	55.2	11.0	74.1	53.9	10.9	9.9	75.2				
Change Period (Y+Rc), s	4.0	4.0	* 5.4	* 5.4	4.0	4.0	* 5.4	* 5.4				
Max Green Setting (Gmax), s	12.0	56.0	* 11	* 53	59.0	9.0	* 7.6	* 56				
Max Q Clear Time (g_c+I1), s	6.4	9.1	6.3	4.4	44.8	6.9	5.4	32.6				
Green Ext Time (p_c), s	0.0	0.5	0.0	22.0	5.2	0.1	0.0	17.2				
Intersection Summary												
HCM 6th Ctrl Delay			35.4									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM Signalized Intersection Capacity Analysis
 1: Beltline/MLK Pkwy & Game Farm Rd

10/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑↑	↑↑	↘	↙	↘
Traffic Volume (vph)	60	844	882	146	338	74
Future Volume (vph)	60	844	882	146	338	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	2.6	2.6
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	3610	3610	1599	1770	1615
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1671	3610	3610	1599	1770	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	63	888	928	154	356	78
RTOR Reduction (vph)	0	0	0	99	0	57
Lane Group Flow (vph)	63	888	928	55	356	21
Heavy Vehicles (%)	8%	0%	0%	1%	2%	0%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	6.6	28.6	16.6	16.6	12.1	12.1
Effective Green, g (s)	8.0	30.0	18.0	18.0	13.5	13.5
Actuated g/C Ratio	0.16	0.60	0.36	0.36	0.27	0.27
Clearance Time (s)	5.4	5.4	5.4	5.4	4.0	4.0
Vehicle Extension (s)	2.5	4.0	4.0	4.0	2.5	2.5
Lane Grp Cap (vph)	266	2161	1297	574	476	435
v/s Ratio Prot	0.04	c0.25	c0.26		c0.20	
v/s Ratio Perm				0.03		0.01
v/c Ratio	0.24	0.41	0.72	0.10	0.75	0.05
Uniform Delay, d1	18.4	5.3	13.8	10.7	16.7	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.2	2.0	0.1	6.0	0.0
Delay (s)	18.7	5.5	15.9	10.8	22.8	13.6
Level of Service	B	A	B	B	C	B
Approach Delay (s)		6.4	15.2		21.1	
Approach LOS		A	B		C	

Intersection Summary

HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	50.1	Sum of lost time (s)	10.6
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Signalized Intersection Summary
 1: Beltline/MLK Pkwy & Game Farm Rd

10/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖	↕	↕	↗	↖	↗	
Traffic Volume (veh/h)	60	844	882	146	338	74	
Future Volume (veh/h)	60	844	882	146	338	74	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1781	1900	1900	1885	1870	1900	
Adj Flow Rate, veh/h	63	888	928	154	356	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	8	0	0	1	2	0	
Cap, veh/h	196	2135	1409	623	476		
Arrive On Green	0.12	0.59	0.39	0.39	0.27	0.00	
Sat Flow, veh/h	1697	3705	3705	1598	1781	1610	
Grp Volume(v), veh/h	63	888	928	154	356	0	
Grp Sat Flow(s),veh/h/ln	1697	1805	1805	1598	1781	1610	
Q Serve(g_s), s	1.6	6.2	9.9	3.0	8.6	0.0	
Cycle Q Clear(g_c), s	1.6	6.2	9.9	3.0	8.6	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	196	2135	1409	623	476		
V/C Ratio(X)	0.32	0.42	0.66	0.25	0.75		
Avail Cap(c_a), veh/h	327	2471	1467	649	625		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	19.0	5.2	11.7	9.6	15.7	0.0	
Incr Delay (d2), s/veh	0.7	0.2	1.2	0.3	3.0	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	1.1	3.0	0.8	3.4	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	19.7	5.4	12.9	9.9	18.7	0.0	
LnGrp LOS	B	A	B	A	B		
Approach Vol, veh/h		951	1082		356	A	
Approach Delay, s/veh		6.3	12.5		18.7		
Approach LOS		A	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				31.6	15.1	9.4	22.2
Change Period (Y+Rc), s				* 5.4	4.0	* 5.4	* 5.4
Max Green Setting (Gmax), s				* 31	15.0	* 7.6	* 18
Max Q Clear Time (g_c+I1), s				8.2	10.6	3.6	11.9
Green Ext Time (p_c), s				15.4	0.7	0.0	5.0

Intersection Summary

HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	5.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶		↷	↶	↷	↷
Traffic Vol, veh/h	58	317	103	61	178	40
Future Vol, veh/h	58	317	103	61	178	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	115	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	1	0
Mvmt Flow	61	334	108	64	187	42

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	395	0	508 228
Stage 1	-	-	-	-	228 -
Stage 2	-	-	-	-	280 -
Critical Hdwy	-	-	4.11	-	6.41 6.2
Critical Hdwy Stg 1	-	-	-	-	5.41 -
Critical Hdwy Stg 2	-	-	-	-	5.41 -
Follow-up Hdwy	-	-	2.209	-	3.509 3.3
Pot Cap-1 Maneuver	-	-	1169	-	526 816
Stage 1	-	-	-	-	812 -
Stage 2	-	-	-	-	770 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1169	-	478 816
Mov Cap-2 Maneuver	-	-	-	-	478 -
Stage 1	-	-	-	-	812 -
Stage 2	-	-	-	-	699 -

Approach	EB	WB	NB
HCM Control Delay, s	0	5.3	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	478	816	-	-	1169	-
HCM Lane V/C Ratio	0.392	0.052	-	-	0.093	-
HCM Control Delay (s)	17.3	9.7	-	-	8.4	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	1.8	0.2	-	-	0.3	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	374	181	58	0	140
Future Vol, veh/h	0	374	181	58	0	140
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	394	191	61	0	147

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	- 222
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0 823
Stage 1	0	-	-	-	0 -
Stage 2	0	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	- 823
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

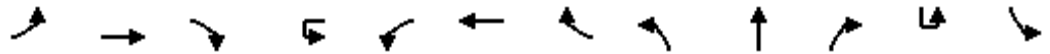
Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	823
HCM Lane V/C Ratio	-	-	-	0.179
HCM Control Delay (s)	-	-	-	10.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

HCM Signalized Intersection Capacity Analysis

10: Beltline & Gateway

10/18/2023



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations	↔↔	↑↑↑	↔↔		↔	↑↑↑						↔
Traffic Volume (vph)	358	623	965	2	151	1514	368	0	0	0	2	191
Future Volume (vph)	358	623	965	2	151	1514	368	0	0	0	2	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.8	3.8	3.8		3.8	3.8						4.0
Lane Util. Factor	0.97	0.91	0.88		1.00	0.91						1.00
Frt	1.00	1.00	0.85		1.00	0.97						1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00						0.95
Satd. Flow (prot)	3502	5187	2842		1805	5035						1805
Flt Permitted	0.95	1.00	1.00		0.39	1.00						0.95
Satd. Flow (perm)	3502	5187	2842		743	5035						1805
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	377	656	1016	2	159	1594	387	0	0	0	2	201
RTOR Reduction (vph)	0	0	465	0	0	25	0	0	0	0	0	0
Lane Group Flow (vph)	377	656	551	0	161	1956	0	0	0	0	0	203
Turn Type	Prot	NA	Perm	custom	Prot	NA					custom	Prot
Protected Phases	7	4			3	8						1
Permitted Phases			4	3							1	
Actuated Green, G (s)	19.1	47.2	47.2		50.1	78.2						37.8
Effective Green, g (s)	20.5	48.6	48.6		51.5	79.6						38.3
Actuated g/C Ratio	0.14	0.32	0.32		0.34	0.53						0.26
Clearance Time (s)	5.2	5.2	5.2		5.2	5.2						4.5
Vehicle Extension (s)	2.5	4.0	4.0		2.5	4.0						2.5
Lane Grp Cap (vph)	478	1680	920		255	2671						460
v/s Ratio Prot	c0.11	0.13				c0.39						
v/s Ratio Perm			0.19		0.22							0.11
v/c Ratio	0.79	0.39	0.60		0.63	0.73						0.44
Uniform Delay, d1	62.7	39.2	42.5		41.3	27.0						46.9
Progression Factor	1.00	1.00	1.00		1.04	0.65						1.00
Incremental Delay, d2	8.1	0.7	2.9		3.7	1.4						0.5
Delay (s)	70.8	39.9	45.4		46.8	18.9						47.4
Level of Service	E	D	D		D	B						D
Approach Delay (s)		48.3				21.0		0.0				
Approach LOS		D				C		A				

Intersection Summary

HCM 2000 Control Delay	40.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	11.6
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Beltline & Gateway

10/18/2023



Movement	SBT	SBR
Lane Configurations	↑	↑↑
Traffic Volume (vph)	401	806
Future Volume (vph)	401	806
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	1.00	0.88
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1900	2842
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1900	2842
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	422	848
RTOR Reduction (vph)	0	340
Lane Group Flow (vph)	422	508
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	37.8	37.8
Effective Green, g (s)	38.3	38.3
Actuated g/C Ratio	0.26	0.26
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.5	2.5
Lane Grp Cap (vph)	485	725
v/s Ratio Prot	c0.22	
v/s Ratio Perm		0.18
v/c Ratio	0.87	0.70
Uniform Delay, d1	53.5	50.6
Progression Factor	1.00	1.00
Incremental Delay, d2	15.5	2.8
Delay (s)	68.9	53.5
Level of Service	E	D
Approach Delay (s)	57.1	
Approach LOS	E	
Intersection Summary		

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis
17: Gateway & Game Farm

10/18/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕		↖	↗			↘	↕		↖	↗
Traffic Volume (vph)	4	2	33	348	4	107	14	66	575	69	151	1003
Future Volume (vph)	4	2	33	348	4	107	14	66	575	69	151	1003
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00		1.00	1.00			1.00	0.95		1.00	0.95
Frt		0.88		1.00	0.86			1.00	0.98		1.00	1.00
Flt Protected		1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)		1673		1805	1625			1805	3552		1805	3607
Flt Permitted		0.95		0.62	1.00			0.16	1.00		0.30	1.00
Satd. Flow (perm)		1594		1175	1625			304	3552		564	3607
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	2	35	366	4	113	15	69	605	73	159	1056
RTOR Reduction (vph)	0	33	0	0	75	0	0	0	12	0	0	1
Lane Group Flow (vph)	0	8	0	366	42	0	0	84	666	0	159	1061
Turn Type	Perm	NA		pm+pt	NA		custom	pm+pt	NA		pm+pt	NA
Protected Phases		4		3	8			5	2		1	6
Permitted Phases	4			8			5	2			6	
Actuated Green, G (s)		3.3		21.1	21.1			29.8	24.5		30.6	24.9
Effective Green, g (s)		3.3		21.6	21.6			30.8	25.0		31.6	25.4
Actuated g/C Ratio		0.05		0.33	0.33			0.48	0.39		0.49	0.39
Clearance Time (s)		4.0		4.5	4.5			4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.5		2.5	2.5			2.5	4.0		2.5	4.0
Lane Grp Cap (vph)		81		530	541			278	1370		393	1413
v/s Ratio Prot				c0.15	0.03			0.03	0.19		c0.04	c0.29
v/s Ratio Perm		0.00		c0.08				0.12			0.16	
v/c Ratio		0.10		0.69	0.08			0.30	0.49		0.40	0.75
Uniform Delay, d1		29.3		18.2	14.8			10.9	15.0		9.7	17.0
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		0.4		3.6	0.0			0.4	0.4		0.5	2.4
Delay (s)		29.7		21.7	14.8			11.4	15.4		10.2	19.4
Level of Service		C		C	B			B	B		B	B
Approach Delay (s)		29.7			20.1				15.0			18.2
Approach LOS		C			C				B			B

Intersection Summary

HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	64.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 17: Gateway & Game Farm

10/18/2023

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	6
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 6th Edition cannot analyze u-turn movements.

HCM Signalized Intersection Capacity Analysis

20: Hutton & Beltline

10/18/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗↗		↗	↗↗		↗↗	↗		↗	↗	↗
Traffic Volume (vph)	41	694	81	50	935	50	998	10	113	50	20	50
Future Volume (vph)	41	694	81	50	935	50	998	10	113	50	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.95		0.97	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.86		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	5106		1805	3582		3502	1639		1805	1900	1615
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1805	5106		1805	3582		3502	1639		1805	1900	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	43	731	85	53	984	53	1051	11	119	53	21	53
RTOR Reduction (vph)	0	8	0	0	2	0	0	107	0	0	0	51
Lane Group Flow (vph)	43	808	0	53	1035	0	1051	23	0	53	21	2
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Actuated Green, G (s)	7.0	66.4		7.7	67.1		52.1	15.6		41.5	5.0	5.0
Effective Green, g (s)	8.4	67.8		9.1	68.5		52.1	15.6		41.5	5.0	5.0
Actuated g/C Ratio	0.06	0.45		0.06	0.46		0.35	0.10		0.28	0.03	0.03
Clearance Time (s)	5.4	5.4		5.4	5.4		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	2.5	4.0		2.5	4.0		2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	101	2307		109	1635		1216	170		499	63	53
v/s Ratio Prot	0.02	0.16		c0.03	c0.29		c0.30	0.01		0.03	c0.01	
v/s Ratio Perm												0.00
v/c Ratio	0.43	0.35		0.49	0.63		0.86	0.14		0.11	0.33	0.03
Uniform Delay, d1	68.5	26.8		68.2	31.1		45.7	61.1		40.4	70.9	70.2
Progression Factor	1.34	0.19		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.0	0.4		2.5	1.9		6.5	0.3		0.1	2.3	0.2
Delay (s)	93.6	5.5		70.7	33.0		52.2	61.4		40.5	73.1	70.3
Level of Service	F	A		E	C		D	E		D	E	E
Approach Delay (s)		9.9			34.8			53.2			58.4	
Approach LOS		A			C			D			E	

Intersection Summary

HCM 2000 Control Delay	35.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary

20: Hutton & Beltline

10/18/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑↑		↖	↑↑		↖↗	↑		↖	↑	↗
Traffic Volume (veh/h)	41	694	81	50	935	50	998	10	113	50	20	50
Future Volume (veh/h)	41	694	81	50	935	50	998	10	113	50	20	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	731	85	53	984	53	1051	11	119	53	21	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	2204	254	85	1653	89	1169	13	143	513	88	74
Arrive On Green	0.08	0.93	0.92	0.05	0.47	0.47	0.33	0.10	0.10	0.28	0.05	0.05
Sat Flow, veh/h	1810	4716	544	1810	3484	188	3510	138	1493	1810	1900	1610
Grp Volume(v), veh/h	43	535	281	53	510	527	1051	0	130	53	21	53
Grp Sat Flow(s),veh/h/ln	1810	1729	1802	1810	1805	1866	1755	0	1631	1810	1900	1610
Q Serve(g_s), s	3.4	2.2	2.4	4.3	31.0	31.1	42.8	0.0	11.7	3.2	1.6	4.9
Cycle Q Clear(g_c), s	3.4	2.2	2.4	4.3	31.0	31.1	42.8	0.0	11.7	3.2	1.6	4.9
Prop In Lane	1.00		0.30	1.00		0.10	1.00		0.92	1.00		1.00
Lane Grp Cap(c), veh/h	72	1616	842	85	857	886	1169	0	156	513	88	74
V/C Ratio(X)	0.60	0.33	0.33	0.62	0.60	0.60	0.90	0.00	0.83	0.10	0.24	0.71
Avail Cap(c_a), veh/h	109	1616	842	121	857	886	1381	0	631	513	114	97
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	2.7	2.9	70.2	28.8	28.9	47.6	0.0	66.6	39.7	69.0	70.6
Incr Delay (d2), s/veh	5.4	0.5	1.0	5.5	3.0	2.9	7.1	0.0	8.3	0.1	1.0	13.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.7	0.9	2.1	13.8	14.2	20.0	0.0	5.3	1.5	0.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	3.2	3.9	75.7	31.9	31.8	54.8	0.0	74.9	39.8	70.0	83.8
LnGrp LOS	E	A	A	E	C	C	D	A	E	D	E	F
Approach Vol, veh/h		859			1090			1181				127
Approach Delay, s/veh		6.9			34.0			57.0				63.1
Approach LOS		A			C			E				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.5	18.4	11.0	74.1	53.9	10.9	9.9	75.2				
Change Period (Y+Rc), s	4.0	4.0	* 5.4	* 5.4	4.0	4.0	* 5.4	* 5.4				
Max Green Setting (Gmax), s	10.0	58.0	* 8.6	* 55	59.0	9.0	* 7.6	* 56				
Max Q Clear Time (g_c+I1), s	5.2	13.7	6.3	4.4	44.8	6.9	5.4	33.1				
Green Ext Time (p_c), s	0.0	0.6	0.0	22.7	5.2	0.1	0.0	17.1				

Intersection Summary

HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

**SANDOW
ENGINEERING**

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sandowengineering.com

City of Springfield
 Development & Public Works
 225 Fifth Street
 Springfield, OR 97477



Zoning Map Amendment, Type III

Required Project Information *(Applicant: complete this section)*

Applicant Name:	PeaceHealth	Phone:	541-225-8777
Company:		Fax:	
Address:	1115 SE 164th Avenue Vancouver, WA 98683		

Applicant Signature:

Property Owner:	PeaceHealth	Phone:	541-225-8777
Company:		Fax:	
Address:	1115 SE 164th Avenue Vancouver, WA 98683		

Owner Signature:

If the applicant is other than the owner, the owner hereby grants permission for the applicant to act in his or her behalf

ASSESSOR'S MAP NO: 17-03-15-40 **TAX LOT NO(S):** _____

Property Address: Not assigned. 1000 and portions of 800, 900 and 1100

Area of Request **Square Feet:** 217,364.4 **Acres:** 4.99

Existing Use(s) of Property: Vacant southeast portion of the PeaceHealth RiverBend Annex

Description of The Proposal: To change the zoning from CI Campus Industrial to MS Medical Services.
 The zone change will allow the site to be developed with a new In-Patient Rehabilitation Facility.

Required Property Information *(City Intake Staff: complete this section)*

Case No.: _____	Date _____	Received by: (initials) _____
Application Fee: _____	Postage Fee: _____	Total Fee: _____

Edited 7/19/2007 bjones

Zoning Map Amendment Submittal Requirements Checklist

1. **The application fee** - Refer to the Development Code Fee Schedule for the appropriate application and postage fee. A copy of the Fee Schedule is available at the Development & Public Works Department.
2. **Deed** - A copy of the deed to show ownership.
3. **Vicinity Map** – A map of the property and the surrounding vicinity which includes the existing zoning and plan designations. One copy must be reduced to 8 ½" by 11" which will be mailed as part of the required neighboring property notification packet.
4. **Findings** - Before the Planning Commission can approve a Zone/Overlay District Change Request, there must be information submitted by the applicant which adequately supports the request. The Criteria the Planning Commission will consider in making their decision is listed below. If insufficient or unclear data is submitted by the applicant, there is a good chance that the request will be denied or delayed. It is recommended that you hire a professional planner or land use attorney to prepare your findings.

Criteria of Approval (Quasi-judicial)

SDC 12.030 requires that in reaching a decision on these actions, the Planning Commission or Hearings Official may approve, approve with conditions or deny a quasi-judicial Zoning Map amendment based upon approval criteria (a)-(c), below.

- (a) Consistency with the Metro Plan policies and the Metro Plan Diagram;
- (b) Consistency with applicable Refinement Plans, Plan District maps, Conceptual Development Plans and functional plans; and
- (c) The property is presently provided with adequate public facilities, services and transportation networks to support the use, or these facilities, services and transportation networks are planned to be provided concurrently with the development of the property.

**PeaceHealth – RiverBend Annex
In-Patient Rehabilitation Facility
Metro Plan Amendment
& Zone Change Applications**



Submitted to:
City of Springfield
Development & Public Works
225 Fifth Street
Springfield, OR 97477

Submitted for:
PeaceHealth
1115 SE 164th Avenue
Vancouver, WA 98683

Submitted by:
Mike Reeder
Law Office of Mike Reeder
345 West 4th Ave, Suite 205
Eugene, OR 97401

Submittal Date: **August 9, 2023**
Revised Submittal Date: **September 29, 2023**

**PeaceHealth – RiverBend Annex
In-Patient Rehabilitation Facility
Metro Plan Amendment & Zone Change Applications**

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EXHIBITS

- Exhibit A - County Assessor’s Map
- Exhibit B - Public Notice Map
- Exhibit C - Aerial Photo
- Exhibit D - Existing and Proposed Plan Designation Map
- Exhibit E - Existing and Proposed Zoning Map
- Exhibit F - Legal Description
- Exhibit G - In-Patient Rehabilitation Hospital Facility – Conceptual Site Plan
- Exhibit H - Traffic Impact Analysis and Transportation Planning Rule Analysis, Sandow Engineering

ITEMS SUBMITTED SEPARATELY

- Metro Plan Amendment Application Form, Type IV
- Zoning Map Amendment Application Form, Type III

I. SUMMARY

Project Name:	RiverBend Annex In-Patient Rehabilitation Facility
Applications:	Plan Amendment & Zone Change – Request for Concurrent Processing as Type IV
Project Address:	Not Assigned to Subject Property East of the Subject Property the PeaceHealth RiverBend Annex building is addressed as 123 International Way.
Assessor’s Map:	17-03-15-40
Tax Lots:	All of tax lot 1000 and portion of tax lots 800, 900, 1100
Project Size:	4.99 Acres
Existing Plan Designation:	Campus Industrial
Proposed Plan Designation:	Commercial
Existing Zoning:	CI Campus Industrial
Proposed Zoning:	MS Medical Services
Applicant/Owner:	PeaceHealth 1115 SE 164th Ave Vancouver, Washington 98683
Applicant’s Representative:	Micheal M. Reeder Law Office of Mike Reeder 375 W. 4th Ave., Suite 205 Eugene, Oregon 97401 (541) 225-8777 mreeder@oregonlanduse.com

II. PROPOSAL

The property subject to this application (the “Subject Property”) is located at the northeast corner of Deadmond Ferry Road and Maple Island Road in Springfield, Oregon. The Subject Property is identified by Lane County Assessor’s Office as Map 17-03-15-40, Tax Lot 1000 and the southern portion of Tax Lots 800, 900, and 1100. Refer to Exhibit A- County Assessor’s Map and Exhibit B- Public Notice Map.

This proposal is a request for approval of a Plan Amendment to the Metro Plan (“Plan”) to re-designate 4.99 acres from Campus Industrial to Community Commercial and a zone change from Campus Industrial (CI) to Medical Services (MS). Approval of this request will allow development of a new In-patient Rehabilitation Facility on the RiverBend Annex Campus.

III. SITE AND PLANNING PROFILE

a. Location

The Subject Property is located northeast of the intersection at Maple Island Rd and Deadmond Ferry Rd. The Subject Property is currently part of a larger development site known as the PeaceHealth (RiverBend) Annex. Refer to Exhibit C - Aerial Photo.

b. Land Use and Zoning

The Subject Property has a plan designation of Campus Industrial and is zoned CI Campus Industrial. The Subject Property is undeveloped. Refer to Exhibit D- Existing and Proposed Plan Designation Map and Exhibit E- Existing and Proposed Zoning Map.

c. Site Characteristics

The Subject Property is undeveloped and a portion contains remnants of an old orchard. The perimeter of the Subject Property is approximately the same grade as the adjacent public right-of-way and slopes downward to the orchard. The soil on the Subject Property is Malabon Silty Clay Loam.

d. Surrounding Area

The Subject Property is situated in an area developed with a mix of residential, commercial, and industrial uses.

- Deadmond Ferry Rd. borders the Subject Property along the South side.

- Maple Island Road borders the Subject Property along the West side.
- Property to the southeast and across Deadmond Ferry Rd is a 1.38-acre parcel zoned High Density Residential and identified as Assessor’s Map 17-03-15-40, Tax Lot 2500. The property is part of a larger development site being developed as a senior assisted living facility. The property address is 3535 Game Farm Rd.



- Property to the south and across Deadmond Ferry is a 0.33-acre parcel zoned Low Density Residential and identified as Assessor’s Map 17-03-15-40, Tax Lot 2600. The property contains a multi-family home and is assigned an address of 3548 E Game Farm Rd.
- Property to the south and across Deadmond Ferry is a 0.55-acre parcel zoned Low Density Residential and identified as Assessor’s Map 17-03-15-40, Tax Lot 2900. The property contains a single-family dwelling and is assigned an address of 3562 E Game Farm Rd.
- Property to the south and across Deadmond Ferry is a 1.38-acre parcel zoned Low Density Residential and identified as Assessor’s Map 17-03-15-40, Tax Lot 3000. The property contains a multi-family dwelling and is assigned an address of 3580 E Game Farm Rd.
- Property to the southwest and across Game Farm Rd is a 13.65-acre parcel zoned Mixed Use Commercial and identified as Assessor’s Map 17-03-15-40, Tax Lot 3100. The property contains a mobile home park and is assigned an address of 3530 Game Farm Rd.

- Property to the west across Maple Island Road is a 13.55-acre parcel zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 0700. The property is developed commercial office headquarters and surface parking lots. The property address is 555 International Way.



- Property to the north across Industrial Way is a 7.05-acre parcel zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 0500. The property is a developed multi-tenant commercial/retail complex. The property is assigned an address of 400 International Way.



- Property to the north across Industrial Way is a 10.29-acre parcel zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 3201. The property is being developed for a religious building. The property is assigned an address of 300 International Way.

- Property to the north across Industrial Way is a 2.38-acre parcel zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 3600. The property is undeveloped land. The property is assigned an address of 200 International Way.
- Property to the east of the Subject Property is 25.11 acres zoned Campus Industrial and identified as Assessor’s Map 17-03-15-40, Tax Lot 1100 and 1101. The property is developed with an Industrial Warehouse with Commercial Offices with an address of 123 International Way. This property is owned by the applicant and commonly known as The Annex.



PeaceHealth RiverBend Annex Shipping and Receiving Entrance on Deadmond Ferry Road is east of the Subject Property. Employee parking is located northeast of the Subject Property.



e. Services & Resources

Fire	Eugene Springfield Fire and Life Safety
Police	Springfield Police
Water	Springfield Utility District (SUB)
Sewer	City of Springfield Sewer
Schools	Holt Elementary, Monroe Middle, and Sheldon High.
Power	Emerald People’s Utility District
Access	Game Farm Rd and International Way
Class I Stream	None
Floodplain	The Subject Property is determined to be outside the 500-year flood plain as determined by Flood Insurance Rate Map (FIRM) Panel 41039C1133F effective June 2, 1999
Historical	None
Archaeological	None
Sensitive Habitat	None
Water Quality	Not located within a water quality limited area per Lane Manual 13.010
Wetlands	None

IV. PLAN AMENDMENT APPROVAL CRITERIA & FINDINGS OF FACT

On January 19, 2023 the applicant participated in an informal meeting with City staff to share PeaceHealth’s vision for a new In-Patient Rehabilitation Facility in the RiverBend campus and to discuss a proposed Plan Amendment and Zone Change for the Subject Property.

Listed below are the Plan Amendment approval criteria in ***bold italics*** followed by the applicant’s findings of fact.

SDC 5.14.135 Criteria.

(A) The amendment shall be consistent with applicable Statewide Planning Goals;

The Findings of Facts below demonstrate the amendment is consistent with applicable Statewide Planning Goals.

The following applicable statewide planning goal statements have been summarized. The Oregon Land Conservation and Development Commission Goals and Guidelines are incorporated herein by reference, except as noted.

GOAL 1: Citizen Involvement - To develop a citizen involvement program to insure the opportunity for citizens to be involved in all phases of the planning process.

The City of Springfield has a citizen involvement program that is acknowledged by the State as in compliance with Goal 1. Citizens are provided the opportunity to be involved in all phases of the planning process. The proposal does not include any changes to the City’s citizen involvement program. The requirements under Goal 1 are met by adherence to the City’s provisions for citizen involvement as implemented by the Springfield Development Code (SDC).

GOAL 2: Land Use Planning - To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual basis for such decisions and actions.

Goal 2 requires local plans and regulatory measures to be consistent with statewide goals and land use decisions to be supported by an adequate factual basis. Goal 2 also requires that comprehensive plan amendments be adopted after a public hearing by the governing body that provides citizens an opportunity to comment on the proposed amendment.

Goal 2 establishes a land use planning process and policy framework as a basis for all land use decisions and requires the development of an adequate factual base to support these decisions. A minor change is one that does not have significant effect beyond its immediate area and is based on special studies or information. The justification for the particular change must be established.

The City of Springfield has adopted a comprehensive land use Plan amendment process, including specific standards that must be addressed to justify the change. In addition, Oregon Administrative Rules have been promulgated for the Exception Process. Substantial compliance with SDC 5.14.100 and the OAR provisions is addressed above and below in this written statement in compliance with the applicable provisions of Goal 2.

The SDC implements Goal 2 by providing state-acknowledged procedures and criteria governing land use decisions. This Plan amendment and related zone change application will be considered by the Planning Commission and City Council following two public hearings. This application is being processed in compliance with the requirements of SDC and thus complies with Goal 2.

GOAL 3: Agricultural Lands

The amendment is for property in the Springfield urban growth boundary and does not affect any land designated for agricultural use. Goal 3 is not applicable.

GOAL 4: Forest Lands

The amendment is for property in the Springfield urban growth boundary and does not affect any land designated for forest use. Goal 4 is not applicable.

GOAL 5: Open Spaces, Scenic and Historic Areas, and Natural Resources- To protect natural resources and conserve scenic and historic areas and open spaces.

Goal 5 requires the conservation of open space and the protection of numerous natural, cultural, historic and scenic resources. The goal applies to the following resources: riparian corridors, water and riparian areas and fish habitat, wetlands, wildlife habitat, mineral and aggregate resources, energy sources, natural areas, scenic views and sites, open space, groundwater resources, wilderness areas, historic resources, cultural areas, Oregon recreational trails, federal wild and scenic waterways and state scenic waterways. OAR 660-023-0010 and 0020 includes definitions, standards and specific rules applicable to each Goal 5 resource inventoried for conservation under the goal.

The Goal 5 resources listed above have been appropriately considered by the City of Springfield in the Plan. The property does not contain any inventoried Statewide Goal 5 resources. There are no known significant natural assets or historic resources on the property. The amendment does not propose a change to the City’s list of Goal 5 resources or propose a change to any regulatory measures related to Goal 5. The proposed request will not allow new uses that could be in conflict with a significant Goal 5 resource site. Goal 5 is not applicable.

GOAL 6: Air, Water and Land Resource Quality- To maintain and improve the quality of the air, water, and land resources of the state.

Goal 6 is generally implemented during the comprehensive planning process and local regulations.

The City of Springfield’s Environmental Services Division (ESD) coordinates the City’s compliance with applicable state and federal environmental quality statutes. ESD manages multiple programs to maintain compliance with Goal 6 including 1) Water Resources Programs, such as implementing the City’s National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit, 2) Industrial Pretreatment Program such as administering the Pollution Management Practice programs, and 3) Wastewater & Stormwater Programs. The proposed Plan amendment does not alter the City’s acknowledged compliance with Goal 6.

As Goal 6 pertains to site-specific development, it requires that adequate protective measures are taken to ensure the maintenance of air, water and land quality. This Plan amendment will encourage development of land inside the city for medical services. All new development must comply with applicable local, state and federal air and water quality standards.

The general vicinity of the Subject Property is served by adequate on-site water and sanitation facilities. The proposed use of the Subject Property is not expected to produce or discharge any product or by-product that would degrade the quality of the air, water and land resources.

GOAL 7: Areas Subject to Natural Disasters or Hazards- To protect people and property from natural hazards.

The Metro Plan and the SDC are acknowledged to be in compliance with all applicable statewide land use goals, including Goal 7. The City of Springfield has existing programs, policies, zoning overlays, and development standards to regulate development in areas subject to natural disasters and hazards.

The Subject Property included is not in the City’s Floodplain Overlay District or the Hillside Development Overlay District. The proposed Plan amendment does not affect any City regulations or alter mitigation requirements for any properties in areas subject to natural disasters and hazards. Goal 7 is not applicable.

There are no known areas subject to natural disasters or hazards on the Subject Property. The Subject Property is not located within the 100-year flood hazard area as determined by Flood Insurance Rate Map (FIRM) Panel 41039C1133F effective June 2, 1999. FEMA has updated flood maps to better show the risk of flooding in Central Lane County. The revised pending maps continue to show the Subject Property in Zone X. The western and southern edge of the Subject Property are in an area with 0.2% annual chance of flood and the remaining portion is considered an area of minimal flood hazard.

GOAL 8: Recreational Needs- To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

Goal 8 addresses the recreational needs of Oregon residents and visitors. Provisions of this goal are appropriately implemented by a legislative process as part of periodic review of the Plan. The City of Springfield evaluated projected population growth, changes in community demographics, and the recreational needs of citizens and visitors. In compliance with Goal 8, the Metro Plan Diagram designates areas needed for Parks and Open Space. The subject property does not contain any land identified as needed to meet recreational needs or to satisfy the demand for recreational facilities.

The proposed Plan amendment and zone change will not affect the City’s supply of land available for recreation areas or recreational facilities. The proposed change from Campus Industrial to Commercial has no direct impact on recreational needs. Goal 8 is not applicable.

GOAL 9: Economy of the State- To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon’s citizens.

The purpose of Goal 9 is to diversify and improve the economy of the State and is primarily applicable to commercial and industrial development. In 2007 the Oregon legislature adopted House Bill 3337 establishing land use planning requirements for the Eugene-Springfield Metro area. ORS 197.304 established a mandate that Springfield and Eugene separately determine the projected 20-year need for housing and establish separate urban growth boundaries to meet housing needs. Although ORS 197.304 only required separate UGBs for housing, it was implicit that the two cities independently plan for other land use needs including employment growth, as defined by Goal 9.

Pursuant to Goal 9, in 2010, Lane County and the cities of Springfield and Eugene approved the Regional Prosperity Economic Development Plan providing a framework to better align regional economic growth with the area's assets and values.

Given the complexity involved with addressing ORS 197.304, the City of Springfield chose to phase adoption of various amendments to the Plan. To address OAR 660-009-0015(1) and (4), the City of Springfield prepared an Economic Opportunities Analysis (EOA) to review "the types and amounts of industrial and other employment uses likely to occur in the planning area". The EOA identified "Medical Services" as a Target Industry and typically located in Plan Designations Commercial, Commercial Mixed Use, High Density Residential Mixed Use, Light Medium Industrial Mixed use or Medium Density Mixed use, or Mixed Use.

The City of Springfield inventory of Commercial Industrial Buildable Land (CIBL) identified the Subject Property as vacant Campus Industrial Land. The CIBL also concluded there were not enough large vacant sites within the City of Springfield UGB to accommodate the projected economic growth. Relevant City of Springfield economic development strategies¹ include:

Provide sites with a variety of site characteristics to meet both commercial and industrial economic opportunities, including sites that are available for relatively fast development. This includes large sites for major employers.

Support and assist existing businesses within Springfield by assessing what kind of assistance businesses need and developing programs to meet that need.

Attract and develop new businesses, especially those related to regional business clusters. The City would like to build on the developing health care cluster, promote development of high-tech businesses, and attract sustainable businesses.

Maintain flexibility in planning through providing efficient planning services and developing planning policies to respond to the changing needs of businesses.

On December 5, 2016, the City of Springfield adopted Ordinance No. 6361 amending the Springfield urban growth boundary and adopting the Springfield 2030 Comprehensive Plan (2030 Plan) Economic and Urbanization Policy Elements. The 2030 Economic Element provides policy direction to address the community's commercial, industrial, and other employment development needs and supplants the Economic Element in the Metro Plan. The new In-Patient Rehabilitation Facility requires a site approximately 4.99 acres in size. Based on data provided by LCOG on June 1, 2023, inside the City of Springfield there are no vacant lots between 4.0 to 8.0 acres in size currently zoned Community Commercial or

¹ CIBL – EOA Summary, August 2015.

Medical Services. There are two vacant lots zoned Mixed Use Commercial that fall within this size range located on the PeaceHealth RiverBend campus across from the hospital. Although the MUC zone would allow an In-Patient Rehabilitation Facility, it is vital that the two properties remain available for uses that require proximity to the hospital.

The Plan amendment will allow the Subject Property to be designated Commercial and fulfill a key economic goal to support the health care cluster. The new In-Patient Rehabilitation Facility will provide a medical service offering patients a transition between services provided in a hospital and those typically available in an assisted care facility. The Subject Property is located close to other major medical facilities including the PeaceHealth RiverBend and McKenzie Willamette hospitals. The Subject Property is within a block of frequent transit service and bike routes.

The Plan amendment will not have an adverse impact availability of suitable sites for a variety of economic activities. The Plan amendment will provide the following economic benefits:

1. The change in plan designation will stimulate development of an underutilized portion of the RiverBend Campus and result in a more efficient land use pattern.
2. Strengthen the medical services sector in the City of Springfield helping to address a “target industry”.
3. Development of the site for the planned In-Patient Rehabilitation Facility is expected to add approximately 150 jobs and result in direct and indirect benefits to the local economy.

For further information regarding the Plan amendment’s compliance with the City of Springfield 2030 Economic Element, please refer to the analysis below regarding SDC 5.14.135(B).

GOAL 10: Housing- To provide for the housing needs of citizens of the state.

Goal 10 is intended to provide for the housing needs of the citizens of the State. This Goal is primarily implemented through the provisions of the Plan. The proposed Plan Amendment does not impact the buildable land supply for housing. The new expanded IPF will initially provide 50 beds for those needing 24-hour medical care exceeding what is typically offered in an assisted care facility or nursing home. The size of the site will allow the facility to add 10 more beds in the future. The facility will not provide the complete services of a hospital so being close to the two hospitals in Springfield will be beneficial.

GOAL 11: Public Facilities and Services- to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The Subject Property is located in the City of Springfield and a full range of urban services are available to serve the site and the anticipated development. The Plan amendment will not affect the City or other service providers' ability to provide public services.

GOAL 12: Transportation- To provide and encourage a safe, convenient and economic transportation system.

The intent of Goal 12 is implemented through the provisions of the State Transportation Planning Rule (TPR) (OAR 660, Division 12) which was adopted by LCDC in 1991. OAR 660-012-0060(1) requires that amendments to functional plans, acknowledged comprehensive plans, and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and level of service of the facility.

To determine whether the proposed amendments will significantly affect a transportation facility, the TPR lists specific criteria against which the proposed amendments are to be evaluated. The TPR provides that a plan or land use regulation amendment significantly affects a transportation facility if it:

- (a) Changes the functional classification of an existing or planned transportation facility;
- (b) Changes standards implementing a functional classification system;
- (c) Allows types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility; or,
- (d) Would reduce the level of service of the facility below the minimum acceptable level identified in the TSP (Transportation System Plan).

For a complete analysis of how the application meets Goal 12 and the Transportation Planning Rule, please see Exhibit H - Traffic Impact Analysis and Transportation Planning Rule Analysis prepared by Sandow Engineering.

GOAL 13: Energy Conservation- To conserve energy.

The Subject Property does not contain any non-renewable energy resources on the property. The proposed Plan amendment will not amend or affect any land use regulations enacted to implement Goal 13. All new development will be required to comply with local, state and federal codes related to energy conservation. Goal 13 is not applicable.

GOAL 14: Urbanization- To provide an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

The Subject Property is in the Springfield Urban Growth Boundary and inside the city limits. This Plan amendment does not propose to expand the Urban Growth Boundary thus does not require a review of the transition of rural to urban land uses. Therefore, the provisions of Goal 14 and OAR Chapter 660, Division 24 (Urban Growth Boundaries) are not applicable.

GOALS 15-19

Goals 15 through 18 are inapplicable to this application as they are geographically oriented and only apply to the Willamette River Greenway and coastal resources.

(B) Plan inconsistency:

- (1) In those cases where the Metro Plan applies, adoption of the amendment shall not make the Metro Plan internally inconsistent.**

The Plan amendment is a request to change the Plan designation for a specific site and does not include any proposed changes to the Plan text. Adoption of the Plan amendment will not cause any internal inconsistencies in the Metro Plan.

- (2) In cases where Springfield Comprehensive Plan applies, the amendment shall be consistent with the Springfield Comprehensive Plan. (6331)**

The Plan amendment is consistent with the Springfield Comprehensive Plan including the policies listed below in **bold italics**:

- Policy E.3 Work with property owners and their representatives to ensure that prime development and redevelopment sites throughout Springfield and its Urban Growth Boundary that are designated for employment use are preserved for future employment needs and are not subdivided or used for non-employment uses.**

The Plan amendment will facilitate development of an underutilized land and allow an in-patient rehabilitation facility to be developed on the site bringing about 150 new jobs to the City of Springfield at about 30 employees per acre.

Policy E.6 Facilitate short term and long term redevelopment activity and increased efficiency of land use through the urban renewal program, updates to refinement plans and the development review process.

The Plan amendment will facilitate efficient land use by increasing the overall intensity and density of the uses on the PeaceHealth RiverBend Annex campus.

Policy E.7 Where possible, concentrate development on sites with existing infrastructure or on sites where infrastructure can be provided relatively easily and at a comparatively low cost.

The Plan amendment concentrates development within the city limits on a site with available infrastructure for public facilities and services.

Policy E.16 Consider the economic opportunities provided by transportation corridors and seek to maximize economic uses in corridors that provide the most optimal locations and best exposure for existing and future commercial and industrial uses.

The Plan amendment will stimulate development on a multi-modal transportation corridor. The new employees will increase ridership on the Lane County Transit District's Emerald Express (EmX) bus rapid transit system as well as the use of the bike routes.

Policy E.28 Increase the potential for employment in the regional industry clusters, including: Health Care, Communication Equipment, Information Technology (Software), Metals (Wholesalers), Local Food and Beverage Production and Distribution, Specialty Agriculture, Wood & Forest Products, and Transportation Equipment.

The Plan amendment will facilitate development of a new in-patient rehabilitation facility increasing employment in the Health Care industry. This Plan amendment will increase the Health Care cluster in the Gateway area of the City.

Policy E.40 Provide the services, infrastructure, and land needed to attract the identified industry clusters, especially where they can increase economic connectivity among businesses.

The Plan amendment will increase the amount of land available for community commercial uses including the proposed in-patient rehabilitation facility.

V. ZONE CHANGE APPROVAL CRITERIA & FINDINGS OF FACT

SDC 5.22.115 (C) Zoning Map Amendment Criteria of Approval

(1) Consistency with applicable Metro Plan policies and the Metro Plan Diagram;

Following approval of the amendment to change the Plan Diagram designation from Campus Industrial to Commercial, the zoning map amendment will be consistent.

There are no mandatory Metro Plan policies related to the proposed zoning.

(2) Consistency with applicable Refinement Plans, Plan District maps, Conceptual Development Plans and functional plans;

The Subject Property is within the boundary of the Gateway Refinement Plan adopted on November 9, 1992. In 1992, the Subject Property was shown on the land use diagram as part of the McKenzie-Gateway Special Light Industrial site.

Below are applicable Gateway Refinement Plan policies in ***bold italics*** followed by the applicant's findings.

8.0 Provide for an efficient and flexible transportation system for the McKenzie-Gateway SLI Site.

9.0 Improve the appearance and effectiveness of the main approaches to the McKenzie-Gateway SLI Site. . . .

Through substantial public and private investments, significant capital improvements have improved the transportation system serving the McKenzie-Gateway SLI Site.

The proposed Zone Change will not have an adverse impact on the transportation system. The planned development will increase potential transit riders using the nearby EmX stations.

10.0 Mitigate the impacts of incremental (SLI) development on existing on-site (non-SLI) uses occupying the McKenzie-Gateway SLI Site.

Policy 10.0 recognized that full development of the McKenzie-Gateway SLI Site would likely occur incrementally. The Subject Property is located at the southwest corner of the RiverBend Annex campus. The impetus for the proposed Zone Change is the proposed use

of the Subject Property for a new expanded PeaceHealth RiverBend In-Patient Rehabilitation Facility. Through the site plan review process, any development will be required to comply with SDC standards including requirements for landscaping, building setbacks, parking, etc. Development of the Subject Property will be compatible with surrounding land uses including the remaining portion of the RiverBend Annex campus.

11.0 *Ensure that development plans adequately consider the site’s natural landscape features and amenities, and provide for the development needs of future developers.*

The proposed Zone Change to Medical Services will allow different uses than the existing CI Campus Industrial zone but many of the development standards, such as landscape requirements for parking areas and stormwater management will remain the same. The site plan review process requires that developers adequately consider existing site conditions.

12.0 *Encourage the preservation and/or enhancement of reminders of the area’s rich agricultural heritage, which are found in the McKenzie-Gateway SLI area.*

The policy above is directed towards the City of Springfield encouraging historic preservation but is not a mandatory policy for reviewing a zone change request. The Subject Property contains a small remnant of a significantly larger filbert orchard to the west of the site. The applicant will consider ways to provide a reminder of the area’s rich agricultural heritage such as a commemorative plaque or display of historic photos in the building. Regardless of zoning, any new development will require changes in grade making it impracticable to retain the orchard.

13.0 *Ensure adequate storm drainage management planning emphasizing the minimization of negative impacts on water quality and quantity resulting from McKenzie-Gateway SLI Site development.*

Any development of the Subject Property will require compliance with City, state and federal water quality standards and to review of proposed storm drainage for the site.

- (3) *The property is presently provided with adequate public facilities, services and transportation networks to support the use, or these facilities, services and transportation networks are planned to be provided concurrently with the development of the property;***

The Subject Property is within the City limits and is presently provided with adequate public facilities, services and transportation networks to support the planned use.

(4) Meet the approval criteria specified in SDC 5.14.100 when involving a Metro Plan Diagram amendment; and

The findings provided above related to SDC 5.14.100 are hereby incorporated by reference.

(5) Compliance with Oregon Administrative Rule (OAR) 660-012-0060, where applicable. (6443)

The applicant retained a licensed traffic engineer (Sandow Engineering) to prepare a Traffic Impact Analysis and Transportation Planning Rule Analysis. The report contains the following findings:

- The addition of development trips does not trigger any intersections to not meet the LOS standards.
- The intersection of Gateway Street at Beltline Road currently operates at LOS F during the PM peak hour. The zone change and proposed use will add less than a 3% increase in trips. This trip increase is insignificant in terms of impact on the intersection. Therefore, no mitigation is recommended.
- The addition of development traffic does not substantially increase queuing conditions.
- There is no off-site mitigation needed for this development.
- TPR findings are demonstrated to be met.

Based upon the findings above, the zone change complies with the Transportation Planning Rule (TPR). For further information, refer to Exhibit I – Traffic Impact Analysis and Transportation Planning Rule Analysis.

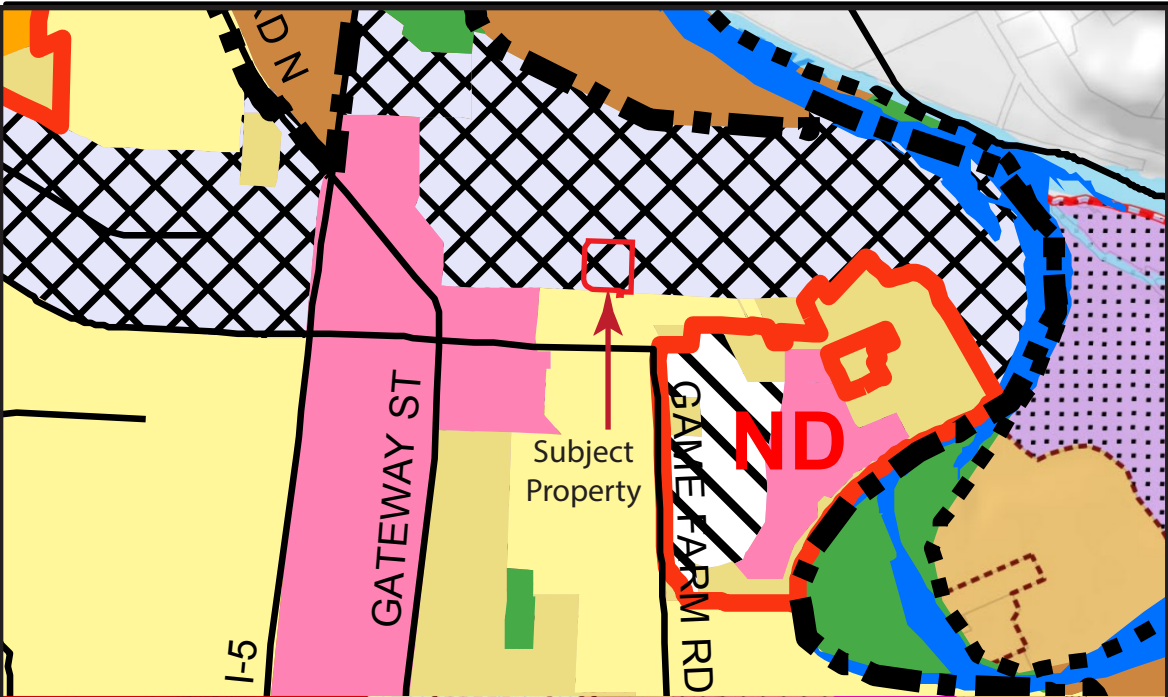
VI. CONCLUSION

The proposed amendments to the Metro Plan Diagram and the Springfield Zoning Map will stimulate development of the Subject Property and help strengthen the local economy.

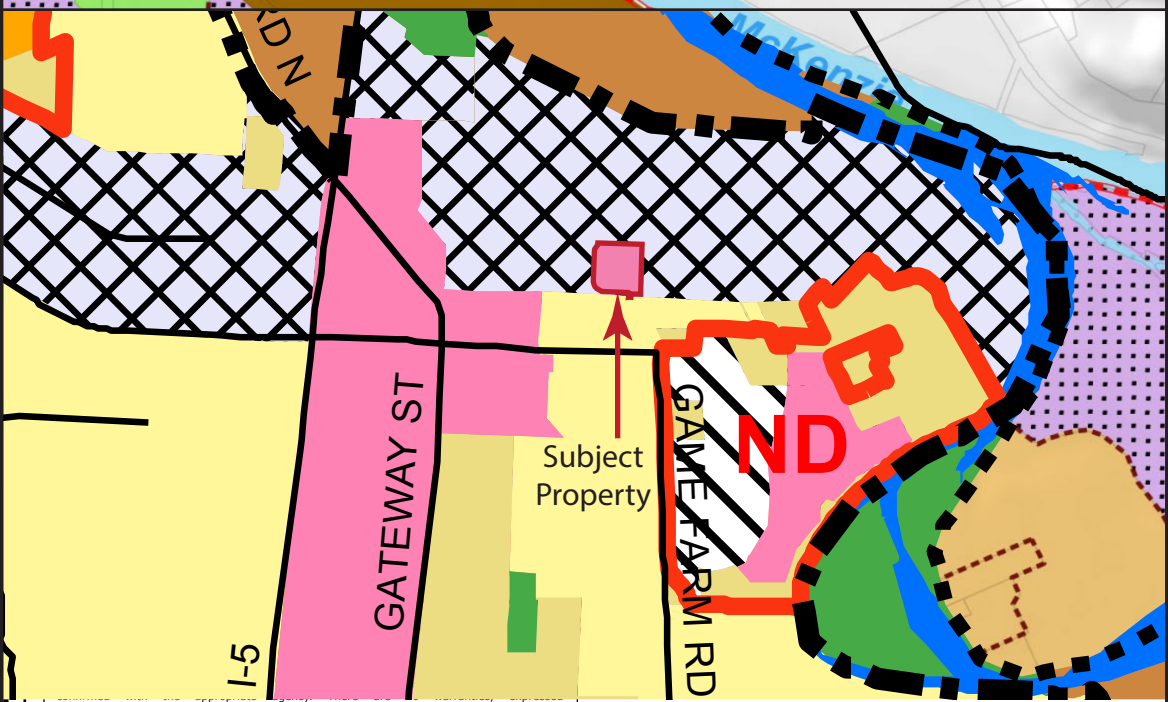
This written narrative, exhibits, and technical reports provide substantial evidence to support approval of the Plan Amendment and Zone Change applications.

Eugene-Springfield Metropolitan Area General Plan Plan Diagram

(The interpretation and purpose of the Plan Diagram, and descriptions of the land uses and symbols shown, are contained in Chapter II-G.)



EXISTING ZONING DESIGNATION - Campus Industrial



PROPOSED ZONING DESIGNATION - Medical Services

Urban Growth Boundary

Metro Plan Boundary

Railroads

Rivers and Ponds

Overlays:

- Mixed Use Areas
- Nodal Development Area
- Willamette Greenway

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Nodal Development
- Commercial
- Major Retail Center
- Heavy Industrial

- Special Heavy Industrial
- Light Medium Industrial
- Campus Industrial
- University Research
- Government & Education
- Parks and Open Space
- Natural Resource

- Sand and Gravel
- Agriculture
- Forest Land
- Rural Residential
- Rural Commercial
- Rural Industrial
- Airport Reserve

12/31/2010

Urban Holding Area

scale 1" = 1000'

PeaceHealth

Cintas - Eugene Plant

EXHIBIT D - Plan Map

EXHIBIT A - Vicinity Map

9/27/23 6/22/23

or implied, accompanying this product. However, notification of any errors will be appreciated.

**BEFORE THE PLANNING COMMISSION OF SPRINGFIELD, OREGON
ORDER AND RECOMMENDATION FOR:**

**TYPE I AMENDMENT TO THE EUGENE-SPRINGFIELD METROPOLITAN AREA GENERAL PLAN] 811-23-000182-TYP4
(METRO PLAN) DIAGRAM AND GATEWAY REFINEMENT PLAN TO REDESIGNATE]
APPROXIMATELY 4.99 ACRES OF LAND IDENTIFIED AS ASSESSOR’S MAP 17-03-15-40,]
TAX LOT 1000 AND PORTIONS OF TAX LOTS 800, 900 AND 1100 FROM CAMPUS INDUSTRIAL (CI)]
TO COMMUNITY COMMERCIAL (CC)]**

NATURE OF THE PROPOSAL

Type I amendment to the *Metro Plan* diagram:

- Redesignate approximately 4.99 acres of property located at the northeast corner of the intersection of Game Farm Road and Maple Island Road (Map 17-03-15-40, Tax Lot 1000 and portions of Tax Lots 800, 900 and 1100) from Campus Industrial to Commercial (C). The subject property is generally depicted and more particularly described in **Exhibit A** to this Order.
- Concurrently amend the *Gateway Refinement Plan* to redesignate the same approximately 4.99 acres of property from Campus Industrial to Community Commercial (CC). The subject property is generally depicted and more particularly described in **Exhibit A** to this Order.

Timely and sufficient notice of the public hearing has been provided, pursuant to Springfield Development Code 5.1.425–5.1.440. Notice was sent to the Department of Land Conservation and Development on October 2, 2023, not less than 35 days prior to the first evidentiary hearing in compliance with OAR 660-018-0020.

On November 7, 2023, the Springfield Planning Commission held a public hearing on the proposed *Metro Plan* diagram and concurrent *Gateway Refinement Plan* diagram amendments which are being processed as a Type 3 Application per SDC 5.1.420. The staff report, written comments, and testimony of those who spoke at the public hearing were entered into the record.

CONCLUSION

On the basis of this record, the Commission finds that the proposed Type I *Metro Plan* diagram amendment and concurrent Refinement Plan diagram amendment is consistent with the criteria of approval in SDC 5.14.135. This general finding is supported by the specific findings of fact and conclusions as stated in the staff report and recommendations attached hereto as **Exhibit B** to this Order.

ORDER/RECOMMENDATION

The Springfield Planning Commission orders a RECOMMENDATION for approval of file number 811-23-000182-TYP4 be forwarded to the Springfield City Council for consideration at an upcoming public hearing.

Planning Commission Chairperson

Date

ATTEST

AYES:

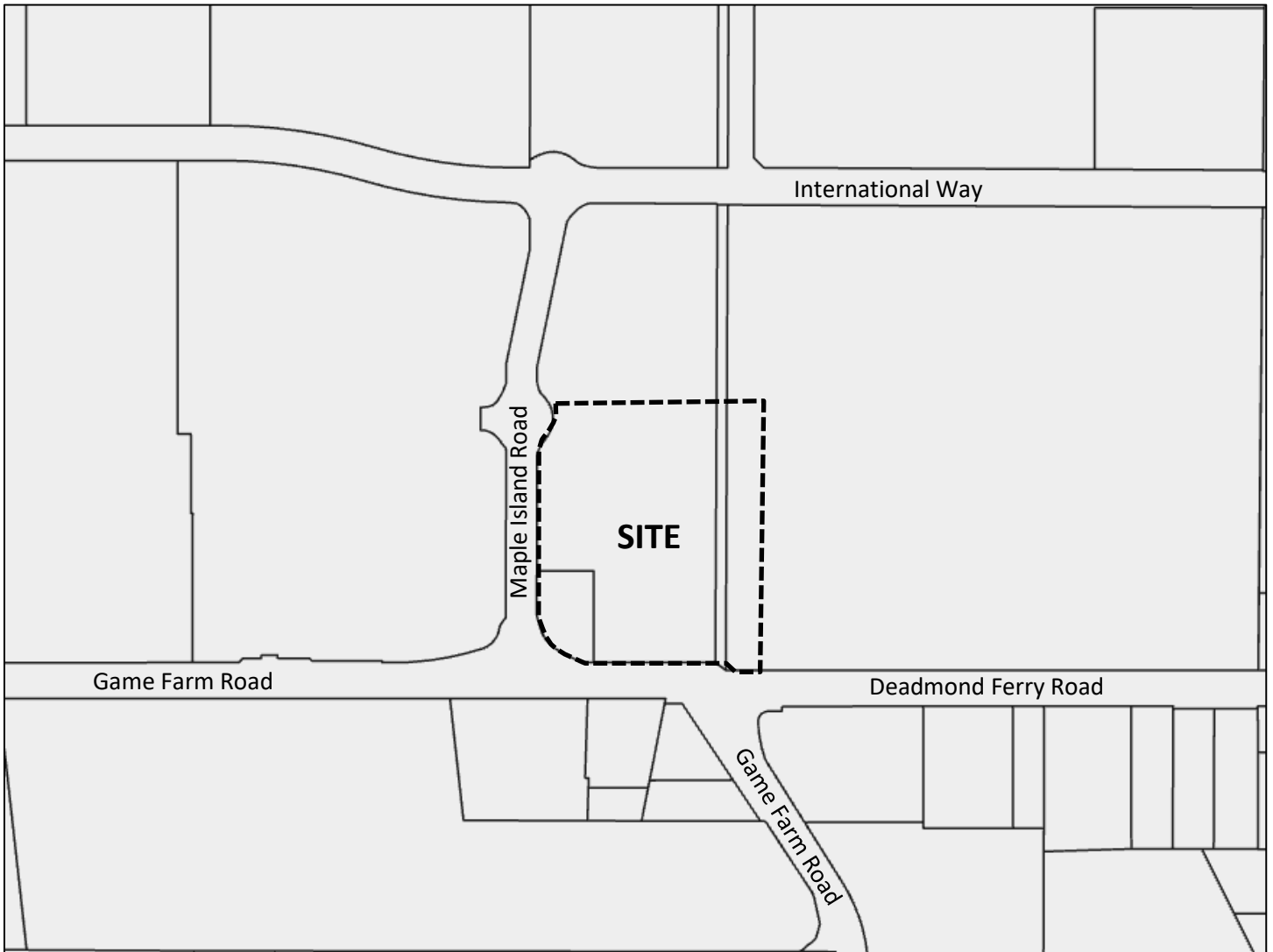
NOES:

ABSENT:

ABSTAIN:

EXHIBIT A

PROPERTY REDESIGNATED FROM CAMPUS INDUSTRIAL TO COMMUNITY COMMERCIAL



LEGAL DESCRIPTION

BEGINNING AT A 5/8-INCH REBAR FOUND; THENCE NORTH 88 DEGREES 16 MINUTES 33 SECONDS WEST, A DISTANCE OF 237.55 FEET, MORE OR LESS TO A 5/8-INCH REBAR WITH YELLOW PLASTIC CAP INSCRIBED "LS2609" FOUND; THENCE NORTH 88 DEGREES 16 MINUTES 19 SECONDS WEST, A DISTANCE OF 22.10 FEET, MORE OR LESS; THENCE NORTH 63 DEGREES 55 MINUTES 41 SECONDS WEST, A DISTANCE OF 18.74 FEET, MORE OR LESS; THENCE NORTH 60 DEGREES 32 MINUTES 51 SECONDS WEST, A DISTANCE OF 35.25 FEET, MORE OR LESS; THENCE WITH A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 45.62 FEET, WITH A RADIUS OF 70.00 FEET, HAVING A CHORD BEARING OF NORTH 40 DEGREES 11 MINUTES 6 SECONDS WEST, AND WITH A CHORD LENGTH OF 44.82 FEET, MORE OR LESS; THENCE WITH A COMPOUND CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 35.40 FEET, WITH A RADIUS OF 270.00 FEET, HAVING A CHORD BEARING OF NORTH 15 DEGREES 1 MINUTE 0 SECONDS WEST, AND WITH A CHORD LENGTH OF 35.37 FEET, MORE OR LESS TO A BENT 1/2-INCH REBAR FOUND; THENCE NORTH 1 DEGREE 47 MINUTES 9 SECONDS EAST, A DISTANCE OF 311.51 FEET, MORE OR LESS; THENCE WITH A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 41.75 FEET, WITH A RADIUS OF 100.00 FEET, HAVING A CHORD BEARING OF NORTH 31 DEGREES 14 MINUTES 21 SECONDS EAST, AND WITH A CHORD LENGTH OF 41.45 FEET, MORE OR LESS; THENCE WITH A REVERSE CURVE TO THE LEFT, HAVING AN ARC LENGTH OF 74.47 FEET, WITH A RADIUS OF 60.00 FEET, HAVING A CHORD BEARING OF NORTH 1 DEGREE 32 MINUTES 5 SECONDS EAST, AND WITH A CHORD LENGTH OF 69.78 FEET, MORE OR LESS; THENCE SOUTH 88 DEGREES 12 MINUTES 51 SECONDS EAST, A DISTANCE OF 414.32 FEET, MORE OR LESS; THENCE SOUTH 1 DEGREE 47 MINUTES 10 SECONDS WEST, A DISTANCE OF 523.27 FEET, MORE OR LESS; THENCE NORTH 88 DEGREES 16 MINUTES 33 SECONDS WEST, A DISTANCE OF 66.30 FEET, MORE OR LESS TO A 5/8-INCH REBAR WITH YELLOW PLASTIC CAP INSCRIBED "LS2609" FOUND; THENCE NORTH 51 DEGREES 18 MINUTES 18 SECONDS WEST, A DISTANCE OF 24.94 FEET, MORE OR LESS TO THE POINT OF BEGINNING, AND CONTAINING AN AREA OF 217,364 SQUARE FEET, OR 4.99 ACRES, MORE OR LESS.

BEARINGS IN THE DESCRIPTIONS ABOVE ARE BASED ON OREGON STATE PLANE COORDINATES, SOUTH ZONE, NAD - 83, INTERNATIONAL FOOT.

Staff Report and Findings
Springfield Planning Commission
Type 1 Amendment to the Metro Plan Diagram

Meeting Date: November 7, 2023

File Number: 811-23-000182-TYP4

Applicant: Law Office of Micheal Reeder on behalf of PeaceHealth

Project Location: Northeast corner of the intersection of Game Farm Road and Maple Island Road (Assessor's Map 17-03-15-40, Tax Lot 1000 and portions of Tax Lots 800, 900 & 1100).

Request

The City has received applications for a Type 1 *Metro Plan* diagram amendment and a concurrent Zoning Map amendment from a property owner. In accordance with Springfield Development Code (SDC) 5.14.115(A)(1), proposals for redesignating land inside the City limits are classified as a Type 1 *Metro Plan* diagram amendment requiring approval by Springfield only. SDC 5.14.125(A) states that an amendment to the *Metro Plan* diagram can be initiated by a property owner at any time. Per SDC 5.1.420(B), the property owner-initiated amendment to the *Metro Plan* diagram is processed as a Type 3 quasi-judicial land use action that requires public hearings before the Springfield Planning Commission and City Council.

The proposed *Metro Plan* diagram amendment would change the plan designation for approximately 4.99 acres of the subject property from Campus Industrial (CI) to Commercial and concurrently change the *Gateway Refinement Plan* designation for the same approximately 4.99 acres from CI to Community Commercial (CC). Concurrent with this *Metro Plan* diagram amendment, an amendment to the Springfield Zoning Map (File 811-23-000181-TYP3) would change the zoning of the same 4.99 acres of property from CI to Medical Services (MS).

The proposed *Metro Plan* diagram, *Gateway Refinement Plan* diagram and Zoning Map amendments would allow for creation of a 4.99-acre site with Community Commercial designation and Medical Services zoning at the southern edge of a large, contiguous area of existing Campus Industrial zoning. The subject site is vacant and is located at the southwest corner of a roughly 42.1-acre property already owned by the applicant. Approximately the eastern 80% of the site (roughly 33.4 acres) is developed as the PeaceHealth Riverbend Annex. Upon redesignation and rezoning of the subject property, the applicant intends to construct a ~66,000 ft² rehabilitation hospital on the 4.99-acre site. Hospitals and medical clinics are not listed as permitted uses within the Campus Industrial district (SDC 3.2.400). However, in accordance with SDC 3.2.510, hospital services and medical clinics are listed as permitted uses in the Medical Services zoning district.

The application was submitted on August 24, 2023 and the initial Planning Commission public hearing on the proposed *Metro Plan* diagram, *Gateway Refinement Plan* diagram and Zoning Map amendments is scheduled for November 7, 2023.

Background

The subject property was originally identified as part of the McKenzie-Gateway Special Light Industrial area when the *Gateway Refinement Plan* was adopted in 1992. Implementation of the Special Light Industrial area was subsequently accomplished through the creation and establishment of the Campus Industrial zoning district. Approximately 280 acres of north Springfield extending from I-5 on the west to

the McKenzie River on the east is currently zoned and designated for Campus Industrial use. Notable early developments within the CI district included Sony, Symantec, and Royal Caribbean. See the acknowledged Commercial and Industrial Lands Inventory (CIBL) for a history of business development in Springfield. However, these companies have since departed and other companies have gravitated to the area and proceeded to occupy and repurpose many of the sites and buildings, including the applicant (PeaceHealth).

Notification and Written Comments

In accordance with the Oregon Administrative Rules (OARs) 660-018-0020, prior to adopting a change to an acknowledged comprehensive plan or land use regulation, local governments are required to notify the state Department of Land Conservation and Development (DLCD) at least 35 days prior to the first evidentiary hearing. A Notice of Proposed Amendment was transmitted to the DLCD on October 2, 2023, which is 36 days prior to the initial public hearing on the matter.

In accordance with SDC 5.1.425(A), Type 3 land use decisions that amend a comprehensive plan and/or rezone specific properties require mailed notification, a posted notice, and a notice in a newspaper of general circulation. Consistent with the requirements of SDC 5.1.425(A), notification of the November 7, 2023 Planning Commission public hearing was mailed to property owners and residents within 300 feet of the subject property on October 17, 2023 which is more than 20 days prior to the first hearing. In accordance with SDC 5.1.440(A), the public hearing notice was published in *The Chronicle* newspaper on October 26, 2023. Staff also posted notices of the November 7, 2023 Planning Commission public hearing at the following locations: three points along the public street frontages of the subject property (northwest corner, southwest corner and southeast corner); on the Public Notices board in the lobby of Springfield City Hall; on the Development & Public Works office digital display; and on the City's webpage. The posted notices exceed the requirements of SDC 5.1.435. A second round of notifications will be issued in early December for the public hearing before the City Council currently scheduled for January 2, 2024.

Criteria of Approval

SDC 5.14.135 contains the criteria of approval for the decision maker to utilize during review of *Metro Plan* diagram amendments. The Criteria of approval are:

SDC 5.14.135 CRITERIA

A Metro Plan amendment may be approved only if the Springfield City Council and other applicable governing body or bodies find that the proposal conforms to the following criteria:

- A. The amendment shall be consistent with applicable Statewide Planning Goals; and*
- B. Plan inconsistency:*
 - 1. In those cases where the Metro Plan applies, adoption of the amendment shall not make the Metro Plan internally inconsistent.*
 - 2. In cases where Springfield Comprehensive Plan applies, the amendment shall be consistent with the Springfield Comprehensive Plan.*

A. Consistency with Applicable State-Wide Planning Goals

Applicant's Narrative: "The Findings of Facts below demonstrate the amendment is consistent with applicable Statewide Planning Goals. The following applicable statewide planning goal statements

have been summarized. The Oregon Land Conservation and Development Commission Goals and Guidelines are incorporated herein by reference, except as noted.”

Finding 1: Of the 19 statewide planning goals, 13 are as “urban” goals that may be applicable to comprehensive plan map amendments in the city; however, it is the proposal and its effect on the purpose of these goals that will determine whether or not the proposed amendment is “consistent with” the applicable goals. The goals that are to be evaluated are: Goal 1 – Citizen Involvement; Goal 2 – Land Use Planning; Goal 5 – Natural Resources, Scenic and Historic Areas, and Open Spaces; Goal 6 – Air, Water and Land Resources Quality; Goal 7 – Areas Subject to Natural Hazards; Goal 8 – Recreational Needs; Goal 9 – Economic Development; Goal 10 – Housing; Goal 11 – Public Facilities and Services; Goal 12 – Transportation; Goal 13 – Energy Conservation; Goal 14 – Urbanization; and Goal 15 – Willamette River Greenway. All of the statewide goals are listed below; the narrative that accompanies each is more expositive when the discussion applies to one of the 13 goals identified above.

Goal 1 – Citizen Involvement

Applicant’s Narrative: “The City of Springfield has a citizen involvement program that is acknowledged by the State as in compliance with Goal 1. Citizens are provided the opportunity to be involved in all phases of the planning process. The proposal does not include any changes to the City’s citizen involvement program. The requirements under Goal 1 are met by adherence to the City’s provisions for citizen involvement as implemented by the Springfield Development Code (SDC).”

Finding 2: Goal 1 – Citizen Involvement calls for “the opportunity for citizens to be involved in all phases of the planning process.” The proposed property owner-initiated amendment to the adopted *Metro Plan* diagram and concurrent amendment to the *Gateway Refinement Plan* diagram is subject to the City’s acknowledged plan amendment process which is a Type 3 land use action under SDC 5.1.400. The applicable Code sections include SDC 5.14.100 – *Metro Plan* Amendments, SDC 5.1.400 – Type 2 and 3 Procedures and SDC 5.1.425–5.1.440 – Type 3 Notice. SDC 5.1.420(B)(4) requires a public hearing before the Springfield Planning Commission and a public hearing before the Springfield City Council, and includes specifications for the content, timing and dispersal of mailed notice (see description following).

Finding 3: The Planning Commission public hearing to consider the proposed amendments has been scheduled for November 7, 2023. Mailed notification of the Planning Commission public hearing was provided to all property owners and residents within 300 feet of the subject property on October 17, 2023. The Planning Commission public hearing was advertised in the legal notices section of *The Chronicle* newspaper on October 26, 2023. Staff also posted notices of the scheduled public hearing at the following locations: three points along the subject property frontages on Game Farm Road (at the southeast corner of the site near the intersection with Deadmond Ferry Road and at southwest corner of the site near the roundabout intersection with Maple Island Road) and at the northwest corner of the site at a second roundabout on Maple Island Road; on the City’s website; on the Public Notices board in the lobby of City Hall; and on the digital display in the Development & Public Works office lobby.

Finding 4: The recommendations of the Planning Commission to the Springfield City Council will be included with the covering Agenda Item Summary (AIS) for consideration at the public hearing meeting that has been scheduled for January 2, 2024. Because of the nearly two-month delay between

the two scheduled public hearing meetings, staff will be completing another round of public notifications in early December 2023 for the City Council public hearing planned for January 2, 2024. At the time the meeting agenda, AIS, covering staff report and supporting documents were posted on the Springfield Planning Commission website (<http://springfielddoregonspeaks.org>) in the week prior to the November 7 meeting, the public was invited to provide comments through the Planning Commission webpage. Additional information was also provided to the public for how to attend the public hearing meeting via online meeting platform or by phone. The notice for this proposed *Metro Plan* diagram amendment complies with SDC 5.1.425–5.1.440 and is consistent with Goal 1 requirements.

Goal 2 – Land Use Planning

Applicant’s Narrative: “Goal 2 requires local plans and regulatory measures to be consistent with statewide goals and land use decisions to be supported by an adequate factual basis. Goal 2 also requires that comprehensive plan amendments be adopted after a public hearing by the governing body that provides citizens an opportunity to comment on the proposed amendment. Goal 2 establishes a land use planning process and policy framework as a basis for all land use decisions and requires the development of an adequate factual base to support these decisions. A minor change is one that does not have significant effect beyond its immediate area and is based on special studies or information. The justification for the particular change must be established. The City of Springfield has adopted a comprehensive land use Plan amendment process, including specific standards that must be addressed to justify the change. In addition, Oregon Administrative Rules have been promulgated for the Exception Process. Substantial compliance with SDC 5.14.100 and the OAR provisions is addressed above and below in this written statement in compliance with the applicable provisions of Goal 2. The SDC implements Goal 2 by providing state-acknowledged procedures and criteria governing land use decisions. This Plan amendment and related zone change application will be considered by the Planning Commission and City Council following two public hearings. This application is being processed in compliance with the requirements of SDC and thus complies with Goal 2.”

Finding 5: Goal 2 – Land Use Planning outlines the basic procedures for Oregon’s statewide planning program. In accordance with Goal 2, land use decisions are to be made in accordance with a comprehensive plan, and jurisdictions are to adopt suitable implementation ordinances that put the plan’s policies into force and effect. Consistent with the City’s coordination responsibilities and obligations to provide affected local agencies with an opportunity to comment, the City sent a copy of the application submittals to the following agencies: Willamalane Park & Recreation District; Springfield Utility Board (water, ground water protection, electricity and energy conservation); Lane 911; United States Postal Service; Northwest Natural Gas; Emerald People’s Utility District; Rainbow Water District; Eugene Water and Electric Board – Water and Electric Departments; Springfield School District #19 Maintenance, Safe Routes to School and Financial Services; Lane County Transportation, County Sanitarian; Lane Regional Air Pollution Authority; Comcast Cable; CenturyLink; Lane Transit District; and ODOT Planning and Development, State Highway Division. Additionally, notice was provided electronically to DLCD on October 2, 2023.

Finding 6: The *Metro Plan* and *Springfield 2030 Comprehensive Plan* together make up the acknowledged comprehensive plan for guiding land use planning in Springfield. The City has adopted other neighborhood- or area-specific plans (such as Refinement Plans) that provide more detailed direction for land use planning under the umbrella of the *Metro Plan* and *Springfield 2030 Comprehensive Plan*. The subject site is within the boundary of the adopted *Gateway Refinement*

Plan. Therefore, the proposed amendment to the *Metro Plan* diagram will concurrently amend the *Gateway Refinement Plan* diagram.

Finding 7: The City has adopted the *Urbanization, Residential Land and Housing* and *Economic* elements of the Springfield 2030 Comprehensive Plan. These adopted elements either replace and supersede (i.e. *Urbanization* and *Economic* elements) or update and supplement (i.e. *Residential Land and Housing* element) the corresponding *Metro Plan* elements. Springfield's Comprehensive Plan elements have been acknowledged by DLCDC. Ensuring that the proposed *Metro Plan* diagram amendment does not create an internal inconsistency in the *Metro Plan* is addressed in Criterion B.1 below.

Finding 8: The public hearing process used for amendment of the *Metro Plan* is specified in Chapter IV *Metro Plan* Review, Amendments, and Refinements. The findings under Criterion B (below) demonstrate that the proposed amendment will not make the adopted *Metro Plan* internally inconsistent.

Finding 9: The City's Development Code is a key mechanism used to implement the goals and policies of the City's adopted comprehensive plans including the *Metro Plan*, elements of the *Springfield 2030 Comprehensive Plan* and neighborhood-specific Refinement Plans. The proposal is classified as a Type 1 amendment to the adopted *Metro Plan* diagram that is approved by Springfield only in accordance with SDC 5.14.115(A). Type 1 *Metro Plan* amendments within City limits do not require concurrent approval or adoption by Lane County. The proposed *Metro Plan* diagram amendment is site-specific and is therefore processed as a Type 3 land use action as described in SDC 5.1.420. The process observed for the proposed *Metro Plan* diagram amendment is consistent with the policies pertaining to Review, Amendments and Refinements. Additionally, the proposed *Metro Plan* diagram amendment and concurrent *Gateway Refinement Plan* diagram amendment has been initiated in accordance with the provisions of the City's acknowledged comprehensive plan and Development Code (SDC 5.14.125(A)). The proposed *Metro Plan* diagram and *Gateway Refinement Plan* diagram amendments are consistent with City ordinances, policies, plans, and studies adopted to comply with Goal 2 requirements. Notice and coordination requirements "with those local governments, state and federal agencies and special districts which have programs, land ownerships, or responsibilities within the area" that includes this proposal have been provided consistent with Goal 2.

Goal 5 – Natural Resources, Scenic and Historic Areas, and Open Spaces

Applicant's Narrative: "Goal 5 requires the conservation of open space and the protection of numerous natural, cultural, historic and scenic resources. The goal applies to the following resources: riparian corridors, water and riparian areas and fish habitat, wetlands, wildlife habitat, mineral and aggregate resources, energy sources, natural areas, scenic views and sites, open space, groundwater resources, wilderness areas, historic resources, cultural areas, Oregon recreational trails, federal wild and scenic waterways and state scenic waterways. OAR 660-023-0010 and 0020 includes definitions, standards and specific rules applicable to each Goal 5 resource inventoried for conservation under the goal. The Goal 5 resources listed above have been appropriately considered by the City of Springfield in the Plan. The property does not contain any inventoried Statewide Goal 5 resources. There are no known significant natural assets or historic resources on the property. The amendment does not propose a change to the City's list of Goal 5 resources or propose a change to any regulatory measures related to Goal 5. The proposed request will not allow new uses that could be in conflict with a significant Goal 5 resource site. Goal 5 is not applicable."

Finding 10: Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources applies to more than a dozen natural and cultural resources such as wildlife habitats and wetlands, and establishes a process for each resource to be inventoried and evaluated. The subject site has not been identified as a historic resource in the City’s Register of Historic Sites, nor as an open space resource in the adopted 2012 Willamalane Park & Recreation District Comprehensive Plan. Project O3 in the 2023 Willamalane Comprehensive Plan (awaiting adoption by the City of Springfield) lists “North Springfield Trail Connectivity” as an ongoing project in the general vicinity of the Campus Industrial district but there are no planned connections through the subject site. Finally, there are no features within the subject property that are identified in the City’s acknowledged Local Wetlands Inventory or Natural Resources Inventory. As noted in the applicant’s narrative, there are no identified or inventoried Goal 5 resources located within the subject site. Therefore, this action does not alter the City’s acknowledged compliance with Goal 5.

Goal 6 – Air, Water and Land Resources Quality

Applicant’s Narrative: “Goal 6 is generally implemented during the comprehensive planning process and local regulations. The City of Springfield’s Environmental Services Division (ESD) coordinates the City’s compliance with applicable state and federal environmental quality statutes. ESD manages multiple programs to maintain compliance with Goal 6 including 1) Water Resources Programs, such as implementing the City’s National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit, 2) Industrial Pretreatment Program such as administering the Pollution Management Practice programs, and 3) Wastewater & Stormwater Programs. The proposed Plan amendment does not alter the City’s acknowledged compliance with Goal 6. As Goal 6 pertains to site-specific development, it requires that adequate protective measures are taken to ensure the maintenance of air, water and land quality. This Plan amendment will encourage development of land inside the city for medical services. All new development must comply with applicable local, state and federal air and water quality standards. The general vicinity of the Subject Property is served by adequate on-site water and sanitation facilities. The proposed use of the Subject Property is not expected to produce or discharge any product or by-product that would degrade the quality of the any water and land resources.”

Finding 11: Goal 6 – Air, Water and Land Resources Quality applies to local comprehensive plans and the implementation of measures consistent with state and Federal regulations on matters such as clean air, clean water, and preventing groundwater pollution. The proposed *Metro Plan* diagram amendment does not affect City ordinances, policies, plans, and studies adopted to comply with Goal 6 requirements. Future development of the site will be subject to the city’s adopted and acknowledged land use regulations at the time of development.

Finding 12: There are no mapped Water Quality Limited Watercourses within or adjacent to the subject property. Therefore, this action does not alter the City’s acknowledged compliance with Goal 6.

Goal 7 – Areas Subject to Natural Hazards

Applicant’s Narrative: “The Metro Plan and the SDC are acknowledged to be in compliance with all applicable statewide land use goals, including Goal 7. The City of Springfield has existing programs, policies, zoning overlays, and development standards to regulate development in areas subject to natural disasters and hazards. The Subject Property included is not in the City’s Floodplain Overlay District or the Hillside Development Overlay District. The proposed Plan amendment does not affect

any City regulations or alter mitigation requirements for any properties in areas subject to natural disasters and hazards. Goal 7 is not applicable. There are no known areas subject to natural disasters or hazards on the Subject Property. The Subject Property is not located within the 100 - year flood hazard area as determined by Flood Insurance Rate Map (FIRM) Panel 41039C1133F effective June 2, 1999. FEMA has updated flood maps to better show the risk of flooding in Central Lane County. The revised pending maps continue to show the Subject Property in Zone X. The western and southern edge of the Subject Property are in an area with 0.2% annual chance of flood and the remaining portion is considered an area of minimal flood hazard.”

Finding 13: Goal 7 – Areas Subject to Natural Hazards applies to development in areas such as floodplains and potential landslide areas. Local jurisdictions are required to apply “appropriate safeguards” when planning for development in hazard areas. The City has inventoried areas subject to natural hazards such as the McKenzie and Willamette River floodplains and potential landslide areas on steeply sloping hillsides. The subject site is on vacant, level ground that is not within the mapped 100-year flood hazard area of the McKenzie River. Future development of the site is subject to the provisions of the City’s Site Plan Review process as described in SDC 5.17.100.

Finding 14: The proposed *Metro Plan* diagram amendment and concurrent *Gateway Refinement Plan* diagram amendment has no effect on City ordinances, policies, plans, and studies adopted to comply with Goal 7 requirements and siting standards for development within hillside areas or the mapped flood hazard area of the McKenzie and Willamette Rivers. Therefore, this action has no effect on the City’s acknowledged compliance with Goal 7.

Goal 8 – Recreational Needs

Applicant’s Narrative: “Goal 8 addresses the recreational needs of Oregon residents and visitors. Provisions of this goal are appropriately implemented by a legislative process as part of periodic review of the Plan. The City of Springfield evaluated projected population growth, changes in community demographics, and the recreational needs of citizens and visitors. In compliance with Goal 8, the Metro Plan Diagram designates areas needed for Parks and Open Space. The subject property does not contain any land identified as needed to meet recreational needs or to satisfy the demand for recreational facilities. The proposed Plan amendment and zone change will not affect the City’s supply of land available for recreation areas or recreational facilities. The proposed change from Campus Industrial to Commercial has no direct impact on recreational needs. Goal 8 is not applicable.”

Finding 15: Goal 8 – Recreational Needs requires communities to evaluate their recreation areas and facilities and to develop plans to address current and projected demand. The provision of recreation services within Springfield is the responsibility of Willamalane Park & Recreation District. Willamalane has just adopted a new Comprehensive Plan for the provision of park, open space and recreation services for Springfield (2023 *Willamalane Comprehensive Plan*). The 2023 *Willamalane Comprehensive Plan* has not yet been co-adopted by the City of Springfield, but it provides current and updated information about the City’s recreational needs under Goal 8.

Finding 16: There are no park or recreational facility projects in the adopted 2012 *Willamalane Comprehensive Plan* that affect the subject property. The 2023 *Willamalane Comprehensive Plan* identifies a potential project in the general vicinity of the subject site. Project O3 – North Springfield Trail Connectivity (also depicted as Project L27 on Figure 35, Page 110) shows a linear multi-purpose path that is not a Willamalane facility, but that could be extended to connect with local trail systems

at Coburg Loop and Armitage Park from north Springfield. The multi-use path shown on Figure 35 of the *Willamalane Comprehensive Plan* and described in Appendix 11, Page 27, follows the alignment of International Way which is just north of the subject site. There is an existing multi-use pathway along the north side of International Way. However, there are no dedicated pathway connections shown to or through the subject property. Future development of the subject site would require the provision of setback sidewalks on the east side of Maple Island Road, which would improve pedestrian accessibility along this segment of road and would eventually connect with the multi-use pathway to the north along International Way. Based on the foregoing, the proposed *Metro Plan* diagram amendment would not affect Willamalane's adopted Comprehensive Plan or other ordinances, policies, plans, and studies adopted to comply with Goal 8 requirements. Therefore, this action is consistent with the City's acknowledged compliance with Goal 8.

Goal 9 – Economic Development

Applicant's Narrative: "The purpose of Goal 9 is to diversify and improve the economy of the State and is primarily applicable to commercial and industrial development. In 2007 the Oregon legislature adopted House Bill 3337 establishing land use planning requirements for the Eugene - Springfield Metro area. ORS 197.304 established a mandate that Springfield and Eugene separately determine the projected 20-year need for housing and establish separate urban growth boundaries to meet housing needs. Although ORS 197.304 only required separate UGBs for housing, it was implicit that the two cities independently plan for other land use needs including employment growth, as defined by Goal 9. Pursuant to Goal 9, in 2010, Lane County and the cities and Springfield and Eugene approved the Regional Prosperity Economic Development Plan providing a framework to better align regional economic growth the area's assets and values. Given the complexity involved with addressing ORS 197.304, the City of Springfield chose to phase adoption of various amendments to the Plan. To address OAR 660-009-0015(1) and (4), the City of Springfield prepared an Economic Opportunities Analysis (EOA) to review "the types and amounts of industrial and other employment uses likely to occur in the planning area". The EOA identified "Medical Services" as a Target Industry and typically located in Plan Designations Commercial, Commercial Mixed Use, High Density Residential Mixed Use, Light Medium Industrial Mixed use or Medium Density Mixed use, or Mixed Use. The City of Springfield inventory of Commercial Industrial Buildable Land (CIBL) identified the Subject Property as vacant Campus Industrial Land. The CIBL also concluded there were not enough large vacant sites within the City of Springfield UGB to accommodate the projected economic growth. Relevant City of Springfield economic development strategies include:

- *Provide sites with a variety of site characteristics to meet both commercial and industrial economic opportunities, including sites that are available for relatively fast development. This include[s] large sites for major employers.*
- *Support and assist existing businesses within Springfield by assessing what kind of assistance businesses need and developing programs to meet that need.*
- *Attract and develop new businesses, especially those related to regional business clusters. The City would like to build on the developing health care cluster, promote development of high-tech businesses, and attract sustainable businesses.*
- *Maintain flexibility in planning through providing efficient planning services and developing planning policies to respond to the changing needs of businesses.*

On December 5, 2016, the City of Springfield adopted Ordinance No. 6361 amending the Springfield urban growth boundary and adopting the Springfield 2030 Comprehensive Plan (2030 Plan)

Economic and Urbanization Policy Elements. The 2030 Economic Element provides policy direction to address the community’s commercial, industrial, and other employment development needs and supplants the Economic Element in the Metro Plan. The new In-Patient Rehabilitation Facility requires a site approximately 4.99 acres in size. Based on data provided by LCOG on June 1, 2023, inside the City of Springfield there are no vacant lots between 4.0 to 8.0 acres in size currently zoned Community Commercial or Medical Services. There are two vacant lots zoned Mixed Use Commercial that fall within this size range located on the PeaceHealth RiverBend campus across from the hospital. Although the MUC zone would allow an In-Patient Rehabilitation Facility, it is vital that the two properties remain available for uses that require proximity to the hospital. The Plan amendment will allow the Subject Property to be designated Commercial and fulfill a key economic goal to support the health care cluster. The new In-Patient Rehabilitation Facility will provide a medical service offering patients a transition between services provided in a hospital and those typically available in an assisted care facility. The Subject Property is located close to other major medical facilities including the PeaceHealth RiverBend and McKenzie Willamette hospitals. The Subject Property is within a block of frequent transit service and bike routes. The Plan amendment will not have an adverse impact availability of suitable sites for a variety of economic activities. The Plan amendment will provide the following economic benefits:

- 1. The change in plan designation will stimulate development of an underutilized portion of the RiverBend Campus and result in a more efficient land use Pattern.*
- 2. Strengthen the medical services sector in the City of Springfield helping to address a “target industry”.*
- 3. Development of the site for the planned In-Patient Rehabilitation Facility is expected to add approximately 150 jobs and result in direct and indirect benefits to the local economy.*

For further information regarding the Plan amendment’s compliance with the City of Springfield 2030 Economic Element, please refer to the analysis below regarding SDC 5.14.135(B).”

Finding 17: Under Goal 9 – Economic Development, the proposed plan amendment must ensure that there is enough serviceable land within the Springfield UGB to meet the industrial and commercial site needs identified in the *Economic Element* and the City’s acknowledged *Commercial and Industrial Buildable Lands Inventory and Economic Opportunities Analysis (CIBL-EOA)*. The CIBL identifies the City’s needed sites for employment uses based on use categories and site size ranges, rather than by cumulative area needed within the UGB.

Finding 18: Table 5-1 of the CIBL concluded that there was a surplus of 235 commercial sites less than one (1) acre, and a deficit of two (2) commercial sites 2-5 acres, but a surplus of forty-four (44) industrial sites of that size. The plan designation proposed for this property would create a commercial site of roughly 5 acres from a currently vacant 6.8-acre industrial site and a small portion (approximately 0.6 acres) of a larger, existing industrial site. The approximately 0.6-acre portion taken from the southwest corner of the ~35-acre PeaceHealth Riverbend Annex property has no appreciable impact on the City’s CIBL or the property’s size classification because it was already inventoried as a 20+ acre “developed” site.

Finding 19: A recent *Metro Plan* diagram amendment and zone change adopted in Ordinance 6422 removed one commercial site in the 2-5 acre category from the City’s Commercial and Industrial Buildable Lands Inventory (CIBL) and added a commercial site in the less than 1 acre category. Subsequently, adoption of Ordinance 6429 added back about 1.14 acres of commercial to the less-than-one-acre site, which, in aggregate, resulted in a new commercial site in the 2-5 acre category and

removed a site from the less than 1 acre category. Additionally, the recently approved Latter Day Saints temple on International Way – currently under construction – removed a 5-20 acre industrial site from the inventory. By creating a new 4.99-acre commercial site from a combination of vacant and developed industrial properties, the proposed redesignation would: 1) remove another 5-20 acre industrial site from the inventory; 2) create another commercial site of 2-5 acres (which eliminates the deficit); and, 3) create a new vacant industrial site in the 2-5 acre category.

Conclusion: The proposal does not have an adverse impact on the City’s CIBL and would eliminate a deficit of commercial sites 2-5 acres in size. Based on the foregoing, this proposal is consistent with Goal 9.

Goal 10 - Housing

Applicant’s Narrative: “Goal 10 is intended to provide for the housing needs of the citizens of the State. This Goal is primarily implemented through the provisions of the Plan. The proposed Plan Amendment does not impact the buildable land supply for housing. The new expanded IPF will initially provide 50 beds for those needing 24-hour medical care exceeding what is typically offered in an assisted care facility or nursing home. The size of the site will allow the facility to add 10 more beds in the future. The facility will not provide the complete services of a hospital so being in close proximity to the two hospitals in Springfield will be beneficial.”

Finding 20: Goal 10 – Housing applies to the planning for – and provision of – needed housing types, including multi-family and manufactured housing. Goal 10 requires the City to evaluate and maintain a sufficient buildable land base for projected housing needs over the forecast period. The City monitors and updates the calculated acreage of residential buildable lands when redesignation and rezoning actions affect the net acreage attributed to Low, Medium, and High-Density Residential uses.

Finding 21: The proposed redesignation does not affect the City’s inventory of residential land. Therefore, Goal 10 is not applicable.

Goal 11 – Public Facilities and Services

Applicant’s Narrative: “The Subject Property is located in the City of Springfield and a full range of urban services are available to serve the site and the anticipated development. The Plan amendment will not affect the City or other service providers’ ability to provide public services.”

Finding 22: Goal 11 – Public Facilities and Services addresses the efficient planning and provision of public services such as sewer, water, law enforcement, and fire protection. In accordance with OAR 660-011-0005(5), public facilities include water, sewer and transportation facilities, but do not include buildings, structures or equipment incidental to the operation of those facilities. The proposed redesignation and rezoning cannot result in permitted uses that will have an adverse effect on the demand for public facilities and services provided to the subject property and adjacent properties. This area of Springfield is already planned for a variety of Campus Industrial uses and the public facilities serving this area have been designed accordingly.

Finding 23: The existing public facilities available to serve the subject site are detailed in the accompanying Zone Change staff report (File 811-23-000181-TYP3) and are incorporated herein by reference. Existing and planned public facilities and services (including infrastructure to be constructed in conjunction with the proposed rehabilitation hospital) will be evaluated with the Site

Plan Review process and are deemed to be adequate to support buildout of the site under the current Campus Industrial zoning and designation or the proposed Commercial designation. Under either land use designation, a proposed development would be responsible for managing drainage on the site, improving the public street frontages (particularly along Maple Island Road), extending the throat of the midpoint roundabout intersection on Maple Island Road to create a driveway entrance, and calculating sewage flow volumes relative to the capacity of the existing sanitary sewer pump station located at the southeast corner of the property. Under the current Campus Industrial designation, the subject property could be developed with a large corporate headquarters building, regional distribution center or manufacturing facility that would require similar infrastructure and have similar impacts to those of a rehabilitation hospital. For the aforementioned reasons, the proposed redesignation of 4.99 acres of Campus Industrial to Commercial should not have a significant impact on the overall land use characteristics and configuration for the *Gateway Refinement Plan* area. The proposed redesignation should result in maintaining stable demand on public facilities and services. Therefore, the changes to the type and distribution of land uses resulting from the proposed *Metro Plan* amendment will not have an adverse impact to the City's sanitary or storm sewer systems, or other public infrastructure. The proposal is consistent with Goal 11 requirements.

Goal 12 – Transportation

Applicant's Narrative: "The intent of Goal 12 is implemented through the provisions of the State Transportation Planning Rule (TPR) (OAR 660, Division 12) which was adopted by LCDC in 1991. OAR 660-012-0060(1) requires that amendments to functional plans, acknowledged comprehensive plans, and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and level of service of the facility. To determine whether the proposed amendments will significantly affect a transportation facility, the TPR lists specific criteria against which the proposed amendments are to be evaluated. The TPR provides that a plan or land use regulation amendment significantly affects a transportation facility if it:

- a) Changes the functional classification of an existing or planned transportation facility;*
- b) Changes standards implementing a functional classification system;*
- c) Allows types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility; or,*
- d) Would reduce the level of service of the facility below the minimum acceptable level identified in the TSP (Transportation System Plan).*

For a complete analysis of how the application meets Goal 12 and the Transportation Planning Rule, please see Exhibit II - Traffic Impact Analysis and Transportation Planning Rule Analysis prepared by Sandow Engineering."

Finding 24: The Transportation Planning Rule (TPR), Oregon Administrative Rule OAR 660-12-0060, requires local governments to put in place mitigation measures as provided in the TPR whenever an amendment to a functional plan, an acknowledged comprehensive plan, or land use regulation (including a zone change) would "significantly affect" an existing or planned transportation facility.

Finding 25: Under the TPR, a plan amendment or zone change may result in a "significant affect" under OAR 660-012-0060(2)(a) and (b) by changing the functional classification of an existing or planned transportation facility or by changing the standards implementing a functional classification system. The subject application proposed to amend the *Metro Plan* diagram designation from Medium Density Residential (MDR) to Commercial designation. The proposed amendments do not alter the functional

classification of any facility or change any standards for implementing the functional classification system and therefore do not result in a “significant affect” under OAR 660-012-0060(2)(a) or (b).

Finding 26: Under the TPR, a plan amendment or zone change may also result in a “significant affect” if it would result in any of the effects listed under OAR 660-012-0060(2)(c) “based on projected conditions measured at the end of the planning period identified in the adopted TSP.”

Finding 27: Under the TPR, a “significant affect” occurs if the proposed amendment(s) would result in types or levels of travel or access that are inconsistent with the identified function classification of the existing or planned transportation facilities, that degrade the performance of an existing or planned transportation facility such that it would not meet performance standards identified in the TSP, or that degrade the performance of an existing or planned transportation facility that is otherwise not projected to meet the performance standards identified in the TSP.

Finding 28: As required by SDC 5.22.110, the applicant has submitted a Traffic Impact Analysis (TIA) addressing trip generation associated with the proposed zone change to show compliance with the TPR at OAR 660-012-0060. The applicant’s TIA can be found in Exhibit H to the application materials submitted for the *Metro Plan* diagram amendment and zone change.

Finding 29: The City’s Transportation Planning Engineer has reviewed the TIA and concurs with the applicant’s trip generation methodology and findings. The applicant’s TIA provides Trip Generation scenarios for the existing and proposed plan designations and zoning. The trips generated by the existing zoning were compared to the proposed zoning under “reasonable worst-case scenario” conditions.

Finding 30: The applicant’s proposed zoning scenario is the reasonable most-traffic-generative use for the subject property. Specifically, the applicant assumes that the subject property would develop as an approximately 72,000 square foot medical clinic, which represents the reasonable most-traffic-generative use that could be constructed on this site.

Finding 31: Under the applicant’s reasonable most traffic-generative scenario, the proposed *Metro Plan* diagram amendment and zone change would result in an increase of 132 peak hour trips over the reasonable most traffic-generative scenario under the current Campus Industrial zoning and designation. When calculated based on 2023 traffic volumes and also projected to the 2035 planning horizon, the applicant’s TIA reaches the following conclusions: 1) the proposed zone change will not cause traffic levels, patterns, or access that are inconsistent with the functional classification of an existing or planned transportation facility; 2) the proposed zone change does not degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards; and, 3) all existing and planned transportation facilities will meet the applicable standards. The TIA further concludes that no off-site mitigation is required to accommodate the proposed development. The TIA’s analysis and findings in support of these conclusions are incorporated herein by reference. Therefore, the increase in trips proposed with this plan amendment and zone change will not result in any significant affect listed under OAR 660-012-0060(2)(c).

Conclusion: Based on the above findings, the subject proposal to amend the *Metro Plan* diagram designation is consistent with OAR 660-012-0060 and SDC 5.22.115(C)(4)(b), and no additional mitigation is required under the TPR. The proposal is consistent with Goal 12 requirements.

Goal 13 – Energy Conservation

Applicant’s Narrative: “The Subject Property does not contain any non- renewable energy resources on the property. The proposed Plan amendment will not amend or affect any land use regulations enacted to implement Goal 13. All new development will be required to comply with local, state and federal codes related to energy conservation. Goal 13 is not applicable.”

Finding 32: The Oregon Land Use Board of Appeals (LUBA) has established that Goal 13 does not require a specific energy analysis or other Goal 13 analysis for changes to a comprehensive plan diagram or zoning. See *Barnard Perkins Corp. v. City of Rivergrove*, 34 Or LUBA 660 (1998).

Finding 33: The proposed comprehensive plan diagram amendment and rezoning does not affect the City’s ordinances, policies, plans, or studies adopted to comply with Goal 13 requirements. Converting 4.99 acres of the property from Campus Industrial to Commercial should not have an appreciable impact to energy consumption. The developer will have an opportunity to incorporate suitable energy conservation measures when detailed construction plans are prepared for the site, irrespective of the zoning. The City’s building codes comply with all Oregon State Building Codes Agency standards for energy efficiency in commercial building design. The City’s conservation measures applicable to storm water management, temporary storage, filtration and discharge would apply to any Campus Industrial, commercial or medical services uses developed on this site; therefore, this action has no effect on the City’s acknowledged compliance with Goal 13.

Goal 14 - Urbanization

Applicant’s Narrative: “The Subject Property is in the Springfield Urban Growth Boundary and inside the city limits. This Plan amendment does not propose to expand the Urban Growth Boundary thus does not require a review of the transition of rural to urban land uses. Therefore, the provisions of Goal 14 and OAR Chapter 660, Division 24 (Urban Growth Boundaries) are not applicable.”

Finding 34: Goal 14 – Urbanization requires cities to estimate future growth rates and patterns, and to incorporate, plan, and zone enough land to meet the projected demands. The City already planned for employment land use on the subject property when completing its Commercial and Industrial Buildable Land inventory. As previously determined and stated above, a surplus of industrial land in the 2-5 acre range exists in the City’s employment land inventory already. The City is responding to a request from a property owner to redesignate and rezone 4.99 acres of the subject property from Campus Industrial to Medical Services use. Very similar and complementary employment land uses already exist in the immediate vicinity of the subject site. The subject property is within the existing UGB and is already annexed to the City. The proposed redesignation and zone change does not affect the City’s adopted ordinances, policies, plans, or studies adopted to satisfy the compliance requirements of Goal 14.

Goal 15 – Willamette River Greenway

Applicant’s Narrative: “Goals 15 through 18 are inapplicable to this application as they are geographically oriented and only apply to the Willamette River Greenway and coastal resources.”

Finding 35: Goal 15 – Willamette River Greenway establishes procedures for administering the 300 miles of greenway that borders the Willamette River, including portions that are inside the City limits and UGB of Springfield. The subject site is not within the adopted Willamette River Greenway

Boundary area so this goal is not applicable; therefore, this action has no effect on the City's acknowledged compliance with Goal 15.

B. Plan Inconsistency

1. In those cases where the *Metro Plan* applies, adoption of the amendment shall not make the *Metro Plan* internally inconsistent.

Applicant's Narrative: "The Plan amendment is a request to change the Plan designation for a specific site and does not include any proposed changes to the Plan text. Adoption of the Plan amendment will not cause any internal inconsistencies in the Metro Plan."

Finding 36: The adopted *Metro Plan* and *Springfield 2030 Comprehensive Plan* are the principal policy documents that create the broad framework for land use planning within the City of Springfield. As explained herein, both are applicable to this application. The City's adopted Zoning Map implements the zoning designations of the *Metro Plan* diagram and localized Refinement Plans, which are adopted amendments to the *Metro Plan*. The subject property is within the *Gateway Refinement Plan* area, so the proposed amendment to the *Metro Plan* diagram will concurrently amend the Refinement Plan diagram. The policies and implementation actions of the *Springfield 2030 Refinement Plan – Economic Element* have updated and superseded the goals, objectives and policies of the *Metro Plan's* Commercial Element pertaining to employment lands. Therefore, the *Metro Plan* Commercial Element does not apply to this proposal.

Finding 37: In accordance with Chapter IV – *Metro Plan* Review, Amendments, and Refinements, the City's Comprehensive Plan is not designed or intended to remain static and unyielding in its assignment of land use designations. To that end, provisions of Chapter IV, Policy 7.a, allow for property owners to initiate an amendment to the *Metro Plan* diagram to reflect a change in circumstances or need.

Finding 38: There are no conflicts created by this proposed diagram amendment based on needed employment land inventories. The development of this land with a commercial (i.e. medical services) use would not conflict with other land use elements in the *Metro Plan* including residential, industrial, park and open space, or government and education. Therefore, adoption of the amendment to the *Metro Plan* diagram will not result in an internal inconsistency.

Finding 39: The City has adopted the *Gateway Refinement Plan* for the northwest quadrant of Springfield, including the subject site. The proposed redesignation would amend the *Gateway Refinement Plan* diagram to change the site's land use designation from Campus Industrial to Community Commercial. The Community Commercial designation in the adopted Refinement Plan is necessary to implement the requested Medical Services zoning. There are no specific policies or implementation actions in the Commercial or Industrial elements of the adopted Refinement Plan that preclude the redesignation of one employment land use to another employment land use – in this case, from Industrial to Commercial.

Finding 40: Implementation Action 7.0 of the Industrial element requires the City to "ensure that McKenzie-Gateway SLI Site development achieves a high level of aesthetics and amenity, consistent with the intent of the Metro Plan SLI designation and with the "campus industrial" concept." The proposed redesignation does not preclude the site from adhering to the requirements of

Implementation Action 7.0, and this consistency with Refinement Plan provisions would be determined at the time of Site Plan Review.

Finding 41: Implementation Action 8.0 of the Industrial element requires the City to “provide for an efficient and flexible transportation system for the McKenzie-Gateway SLI Site.” The subject site already has a mature and efficient transportation system developed along the site frontages and in the immediate vicinity, including provisions for passenger vehicle, commercial vehicle, pedestrian, bicycle, and bus rapid transit modes of travel. As evidenced by the TIA submitted in support of the proposed redesignation (see Goal 12 analysis in Criterion A, above), the requested action does not adversely impact the local transportation system.

Conclusion: Because the City has adopted the *Springfield 2030 Refinement Plan – Economic Element*, the Commercial Element of the *Metro Plan* no longer applies to this proposal. Additionally, based on the foregoing findings the requested redesignation does not cause the adopted *Gateway Refinement Plan* to be internally inconsistent. For the above reasons, Criterion B.1 is met.

2. In cases where Springfield Comprehensive Plan applies, the amendment shall be consistent with the Springfield Comprehensive Plan.

Applicant’s Narrative: “The Plan amendment is consistent with the Springfield Comprehensive Plan including the policies listed below in bold italics:

Policy E.3 Work with property owners and their representatives to ensure that prime development and redevelopment sites throughout Springfield and its Urban Growth Boundary that are designated for employment use are preserved for future employment needs and are not subdivided or used for non-employment uses.

The Plan amendment will facilitate development of an underutilized land and allow an inpatient rehabilitation facility to be developed on the site bringing about 150 new jobs to the City of Springfield at about 30 employees per acre.

Policy E.6 Facilitate short term and long term redevelopment activity and increased efficiency of land use through the urban renewal program, updates to refinement plans and the development review process.

The Plan amendment will facilitate efficient land use by increasing the overall intensity and density of the uses on the PeaceHealth RiverBend Annex campus.

Policy E.7 Where possible, concentrate development on sites with existing infrastructure or on sites where infrastructure can be provided relatively easily and at a comparatively low cost.

The Plan amendment concentrates development within the city limits on a site with available infrastructure for public facilities and services.

Policy E.16 Consider the economic opportunities provided by transportation corridors and seek to maximize economic uses in corridors that provide the most optimal locations and best exposure for existing and future commercial and industrial uses.

The Plan amendment will stimulate development on a multi-modal transportation corridor. The new employees will increase ridership on the EmX and use of the bike routes.

Policy E.28 Increase the potential for employment in the regional industry clusters, including: Health Care, Communication Equipment, Information Technology (Software), Metals

(Wholesalers), Local Food and Beverage Production and Distribution, Specialty Agriculture, Wood & Forest Products, and Transportation Equipment.

The Plan amendment will facilitate development of a new in-patient rehabilitation facility increasing employment in the Health Care industry. This Plan amendment will increase the Health Care cluster in the Gateway [area] of the City.

Policy E.40 Provide the services, infrastructure, and land needed to attract the identified industry clusters, especially where they can increase economic connectivity among businesses.

The Plan amendment will increase the amount of land available for community commercial uses including the proposed in-patient rehabilitation facility.”

Finding 42: The applicant is proposing to redesignate a vacant portion of its own property holdings to facilitate construction of a medical facility in an area of expanding medical and health-related industries in north Springfield. The health care use proposed for this location (i.e. specialty hospital) is specifically identified in the CIBL as being a top-tier sector for commercial land uses within the City’s employment land base.

Finding 43: The proposed *Metro Plan* diagram amendment will concurrently amend the *Gateway Refinement Plan* diagram. The land use designation for the subject site would be changed from Campus Industrial to Community Commercial. In accordance with SDC 3.2.505(B), the requested Medical Services zoning requires a commercial land use designation of Community Commercial, Major Retail Commercial or Mixed Use Commercial for its implementation.

Finding 44: Through its previous Commercial and Industrial Buildable Land inventory, the City has determined that a large surplus of 2-5 acre industrial sites exist within the Springfield land base. The proposed redesignation and rezoning of this property from Campus Industrial to Medical Services would slightly reduce this acknowledged surplus while providing a development-ready site for a key target industry employment use. The proposed redesignation also eliminates the deficit of commercial sites in the 2-5 acre category.

Finding 45: The proposed redesignation is consistent with Policy E.1 of the *Springfield 2030 Comprehensive Plan – Economic Element* whereby the applicant is proposing to redesignate a vacant, undeveloped site with specific characteristics (e.g. size, location and configuration) and for a specific intended employment use. Consistent with Policy E.11 and Implementation Strategy E.11.1 of the *Economic Element*, the proposed employment use is Medical Services which represents a top “target sector” as described in the City’s Economic Opportunities Analysis.

Finding 46: By redesignating the subject property, the proposal meets Policy E.28 and Implementation Strategy E.28.3 of the *Economic Element* which encourages employment in regional clusters of target industries, particularly medical services. The proposed redesignation would facilitate construction of a rehabilitation hospital on the site, which contributes to a local cluster of health care and health-related users that have located or relocated into the North Gateway area of Springfield. These include a major regional hospital, specialty clinics, medical laboratories, physicians’ offices, and administrative headquarters for health care plan and health insurance providers.

Finding 47: The Economic Element policies and implementation actions of the *Springfield 2030 Comprehensive Plan – Economic Element* apply to the subject site. The accompanying Zone Change staff report (File 811-23-000181-TYP3) discusses and evaluates the application’s consistency with

the adopted policies and implementation strategies of the *Economic Element*. The findings and conclusions in Criterion C.1 of the Zone Change staff report are adopted herein by reference and in part satisfy the requirements of *Metro Plan* Amendment Criterion B.2.

Conclusion: Based on the foregoing, the proposal to redesignate the subject property from Campus Industrial to Commercial is consistent and compatible with the adopted policies of the *Metro Plan* and the *Springfield 2030 Comprehensive Plan – Economic Element*. The action reduces an acknowledged surplus of 2-5 acre industrial sites and eliminates the deficit of 2-5 acre commercial sites in favor of creating a key target industry development site. The action also contributes to an industry cluster of similar medical and health care related sites in the Riverbend and North Gateway area of Springfield. Therefore, the proposal meets Criterion B.2.

Conclusion and Recommendation

Based on the applicant's narrative, the findings herein, testimony submitted into the record, the criteria of SDC 5.14.135 for approving amendments to the *Metro Plan*, the proposed *Metro Plan* diagram amendment is consistent with the applicable criteria.

**BEFORE THE PLANNING COMMISSION OF SPRINGFIELD, OREGON
ORDER AND RECOMMENDATION FOR:**

AMENDMENT TO THE SPRINGFIELD ZONING MAP TO REZONE APPROXIMATELY 4.99 ACRES OF LAND IDENTIFIED AS ASSESSOR’S MAP 17-03-15-40, TAX LOT 1000 AND PORTIONS OF TAX LOTS 800, 900 AND 1100 FROM CAMPUS INDUSTRIAL (CI) TO MEDICAL SERVICES (MS)] 811-23-000181-TYP3
]]
]]

NATURE OF THE PROPOSAL

Proposed amendments to the Springfield Zoning Map:

- Rezone approximately 4.99 acres of property located at the northeast corner of the intersection of Game Farm Road and Maple Island Road (Map 17-03-15-40, Tax Lot 1000 and portions of Tax Lots 800, 900, and 1100) and the abutting public rights-of-way including the full width of Game Farm Road and the eastern one-half of Maple Island Road as measured from centerline from Campus Industrial to Medical Services. The subject property and public rights-of-way are generally depicted and more particularly described in **Exhibit A** to this Order.
- The subject Zoning Map amendment is being processed concurrently with a *Metro Plan* diagram and concurrent *Gateway Refinement Plan* amendment initiated by Planning Case 811-23-000182-TYP4.

The zone change request was initiated in accordance with provisions of the City’s Development Code. Timely and sufficient notice of the public hearing has been provided, pursuant to SDC 5.1.425–5.1.440. Notice was sent to the Department of Land Conservation and Development on October 2, 2023, not less than 35 days prior to the first evidentiary hearing in compliance with OAR 660-018-0020.

On November 7, 2023, the Springfield Planning Commission held a public hearing on the proposed *Metro Plan* diagram amendment, concurrent *Gateway Refinement Plan* diagram amendment and Zoning Map amendment. The staff report, recommended conditions of approval, written comments, and testimony of those who spoke at the public hearing were entered into the record.

CONCLUSION

On the basis of this record, as conditioned herein the proposed Zoning Map amendment is consistent with the criteria of approval in SDC 5.22.115. This general finding is supported by the specific findings of fact and conclusions as stated in the staff report, recommendations and conditions of approval attached hereto as **Exhibit B** to this Order.

ORDER/RECOMMENDATION

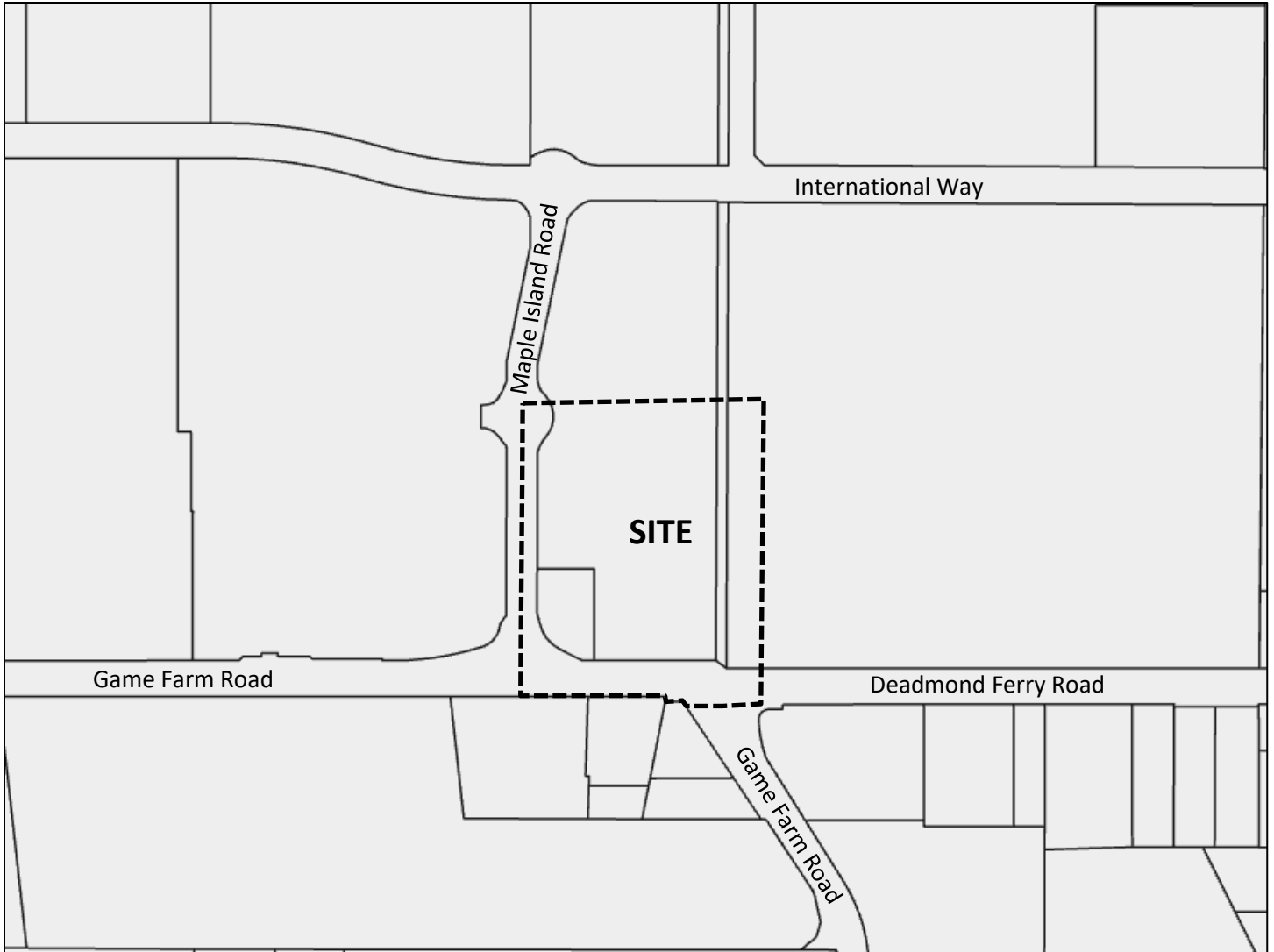
The Springfield Planning Commission orders a RECOMMENDATION for approval of file number 811-23-000181-TYP3 be forwarded to the Springfield City Council for consideration at an upcoming public hearing.

Planning Commission Chairperson

Date

- ATTEST**
AYES:
NOES:
ABSENT:
ABSTAIN:

EXHIBIT A
PROPERTY AND PUBLIC RIGHTS-OF-WAY REZONED FROM CAMPUS INDUSTRIAL TO MEDICAL SERVICES



LEGAL DESCRIPTION

BEGINNING AT A 5/8-INCH REBAR FOUND; THENCE NORTH 88 DEGREES 16 MINUTES 33 SECONDS WEST, A DISTANCE OF 237.55 FEET, MORE OR LESS TO A 5/8-INCH REBAR WITH YELLOW PLASTIC CAP INSCRIBED "LS2609" FOUND; THENCE NORTH 88 DEGREES 16 MINUTES 19 SECONDS WEST, A DISTANCE OF 22.10 FEET, MORE OR LESS; THENCE NORTH 63 DEGREES 55 MINUTES 41 SECONDS WEST, A DISTANCE OF 18.74 FEET, MORE OR LESS; THENCE NORTH 60 DEGREES 32 MINUTES 51 SECONDS WEST, A DISTANCE OF 35.25 FEET, MORE OR LESS; THENCE WITH A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 45.62 FEET, WITH A RADIUS OF 70.00 FEET, HAVING A CHORD BEARING OF NORTH 40 DEGREES 11 MINUTES 6 SECONDS WEST, AND WITH A CHORD LENGTH OF 44.82 FEET, MORE OR LESS; THENCE WITH A COMPOUND CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 35.40 FEET, WITH A RADIUS OF 270.00 FEET, HAVING A CHORD BEARING OF NORTH 15 DEGREES 1 MINUTE 0 SECONDS WEST, AND WITH A CHORD LENGTH OF 35.37 FEET, MORE OR LESS TO A BENT 1/2-INCH REBAR FOUND; THENCE NORTH 1 DEGREE 47 MINUTES 9 SECONDS EAST, A DISTANCE OF 311.51 FEET, MORE OR LESS; THENCE WITH A CURVE TO THE RIGHT, HAVING AN ARC LENGTH OF 41.75 FEET, WITH A RADIUS OF 100.00 FEET, HAVING A CHORD BEARING OF NORTH 31 DEGREES 14 MINUTES 21 SECONDS EAST, AND WITH A CHORD LENGTH OF 41.45 FEET, MORE OR LESS; THENCE WITH A REVERSE CURVE TO THE LEFT, HAVING AN ARC LENGTH OF 74.47 FEET, WITH A RADIUS OF 60.00 FEET, HAVING A CHORD BEARING OF NORTH 1 DEGREE 32 MINUTES 5 SECONDS EAST, AND WITH A CHORD LENGTH OF 69.78 FEET, MORE OR LESS; THENCE SOUTH 88 DEGREES 12 MINUTES 51 SECONDS EAST, A DISTANCE OF 414.32 FEET, MORE OR LESS; THENCE SOUTH 1 DEGREE 47 MINUTES 10 SECONDS WEST, A DISTANCE OF 523.27 FEET, MORE OR LESS; THENCE NORTH 88 DEGREES 16 MINUTES 33 SECONDS WEST, A DISTANCE OF 66.30 FEET, MORE OR LESS TO A 5/8-INCH REBAR WITH YELLOW PLASTIC CAP INSCRIBED "LS2609" FOUND; THENCE NORTH 51 DEGREES 18 MINUTES 18 SECONDS WEST, A DISTANCE OF 24.94 FEET, MORE OR LESS TO THE POINT OF BEGINNING, AND CONTAINING AN AREA OF 217,364 SQUARE FEET, OR 4.99 ACRES, MORE OR LESS.

BEARINGS IN THE DESCRIPTIONS ABOVE ARE BASED ON OREGON STATE PLANE COORDINATES, SOUTH ZONE, NAD - 83, INTERNATIONAL FOOT.

ALSO INCLUDING: THE PUBLIC RIGHT-OF-WAY FOR GAME FARM ROAD BETWEEN THE EASTERN BOUNDARY OF THE SUBJECT SITE AND EXTENDING TO THE CENTERLINE OF THE INTERSECTION WITH MAPLE ISLAND ROAD; AND

ALSO INCLUDING: THE EASTERN HALF OF MAPLE ISLAND ROAD PUBLIC RIGHT-OF-WAY AS MEASURED FROM CENTERLINE BETWEEN THE INTERSECTION WITH GAME FARM ROAD AND EXTENDING TO THE NORTHERN BOUNDARY OF THE SUBJECT SITE.

**Staff Report and Findings
Springfield Planning Commission
Zone Change Request**

Hearing Date: November 7, 2023

File Number: 811-23-000181-TYP3

Applicant: Micheal Reeder, Law Office of Mike Reeder

Property Owner: PeaceHealth

Site: Northeast corner of the intersection of Game Farm Road and Maple Island Road (Assessor's Map 17-03-15-40, Tax Lot 1000 and portions of Tax Lots 800, 900 & 1100).

Request

Rezone approximately 4.99 acres of vacant property from Campus Industrial (CI) to Medical Services (MS). Concurrently rezone the abutting public right-of-way for Game Farm Road and the eastern half of Maple Island Road as measured from centerline abutting the subject site.

Site Information/Background

The application was initiated on August 24, 2023 and amended on October 2, 2023, and the Planning Commission public hearing on the matter of the zone change request is scheduled for November 7, 2023. The zone change request is being processed concurrently with a *Metro Plan* diagram amendment submitted under separate cover, File 811-23-000182-TYP4. The City Council will be reviewing both applications and the Planning Commission's recommendations at a public hearing currently scheduled for January 2, 2024.

The site that is subject of the zone change request is a 4.99-acre property located at the northeast corner of the intersection of Game Farm Road and Maple Island Road. The property is comprised of four separate tax lots (or portions thereof) and it adjoins the PeaceHealth Riverbend Annex facility to the east (Assessor's Map 17-03-15-40, Tax Lot 1000 and portions of Tax Lots 800, 900 & 1100). The property is vacant and contains a remnant filbert orchard that probably pre-dates the creation of the Campus Industrial zoning district.

The subject site has corner frontage on Game Farm Road along the southern boundary and Maple Island Road along the western boundary. The properties immediately to the west, north and east are zoned and designated for Campus Industrial (CI) use. Properties to the south and southeast are zoned and designated R-1 residential and R-3 residential. The property to the southwest is zoned and designated Mixed Use Commercial (MUC). The applicant is proposing the zone change from Campus Industrial to Medical Services as an initial step to facilitate future construction of a rehabilitation hospital on the site.

Staff is recommending concurrently annexing the abutting public right-of-way for Game Farm Road and the eastern half of Maple Island Road to ensure the Springfield Zoning Map depicts the rezoned area correctly and there are no remnant pieces of Campus Industrial zoning created through this action.

Notification and Written Comments

Notification of the November 7, 2023 Planning Commission public hearing was sent to all property owners and residents within 300 feet of the site on October 17, 2023. Newspaper notice of the public hearing meeting was published in the *Chronicle* on October 26, 2023. Staff responded to one request for a copy of the

application materials but no written comments were received up to the time of staff report publication on October 31, 2023. Written comments submitted in the period following publication of the staff report and continuing to the opening of the public hearing meeting will be uploaded to the springfieldoregonspeaks.org website.

Criteria of Approval

Section 5.22.100 of the Springfield Development Code (SDC) contains the criteria of approval for the decision maker to utilize during review of Zoning Map amendment requests. The Criteria of Zoning Map amendment approval criteria are:

SDC 5.22-115 CRITERIA

C. Zoning Map amendment criteria of approval:

- 1. Consistency with applicable Metro Plan policies and the Metro Plan diagram;*
- 2. Consistency with applicable Refinement Plans, Plan District maps, Conceptual Development Plans and functional plans; and*
- 3. The property is presently provided with adequate public facilities, services and transportation networks to support the use, or these facilities, services and transportation networks are planned to be provided concurrently with the development of the property.*
- 4. Legislative Zoning Map amendments that involve a Metro Plan Diagram amendment shall:*
 - a. Meet the approval criteria specified in Section 5.14-100; and*
 - b. Comply with Oregon Administrative Rule (OAR) 660-012-0060, where applicable.*

Proposed Findings In Support of Zone Change Approval

Criterion: Zoning Map amendment criteria of approval:

1. Consistency with applicable Metro Plan policies and the Metro Plan diagram;

Applicant's Narrative: "Following approval of the amendment to change the Plan Diagram designation from Campus Industrial to Commercial, the zoning map amendment will be consistent. There are no mandatory Metro Plan policies related to the proposed zoning."

Approval Standard: Metro Plan Chapter IV, Policy 7.a states: "A property owner may initiate a [Type I Metro Plan diagram] amendment for property they own at any time. Owner initiated amendments are subject to the limitations for such amendments set out in the development code of the home city."

Finding 1: The property owner initiated a concurrent *Metro Plan* diagram amendment in accordance with provisions of SDC 5.14.100 (File 811-23-000182-TYP4). Rezoning 4.99 acres of the subject property from Campus Industrial (CI) to Medical Services (MS) is consistent with the requested *Metro Plan* diagram amendment initiated by the applicant. Upon adoption of the amending Ordinance, the *Metro Plan* diagram would be amended and the requested zone change from Campus Industrial to Medical Services would be consistent with the provisions of the adopted Comprehensive Plan. Prior

or concurrent amendment of the *Metro Plan* diagram will be required for the subject zone change request to be approved.

Finding 2: The proposed zone change is consistent with provisions of the *Metro Plan* whereby zoning can be monitored and adjusted as necessary to meet current urban land use demands. The requested change from CI to MS would facilitate the future review and approval of a hospital facility on currently vacant property. Additionally, the requested rezoning would allow for a recalibration of the amount and type of uses within the Campus Industrial zone of north Springfield.

Finding 3: The subject site is part of a large, contiguous area of north Springfield that is zoned and designated for Campus Industrial use. The Campus Industrial zoning district was implemented in this area after adoption of the *Gateway Refinement Plan* in 1992. As of October 2023, there is still a substantial area of vacant and undeveloped CI zoned lands including the subject site.

Finding 4: The City has initiated adoption of the *Springfield 2030 Comprehensive Plan – Land Use Element* that will also introduce a new, parcel-specific land use designation map for Springfield. Upon implementation, the new *Land Use Element* and Comprehensive Plan Map will replace and supersede the *Metro Plan* Land Use Element and Diagram. This initiative has already proceeded through joint public hearings with the Springfield and Lane County Planning Commissions and is scheduled for public hearings and final adoption with the Joint Elected Officials (Springfield and Lane County). The new *Land Use Element* and Comprehensive Plan map are anticipated to become effective after the subject application is adjudicated by the Springfield Planning Commission and City Council. Therefore, no conflict exists for this proposed *Metro Plan* diagram amendment and Zone Change.

Finding 5: The policies of the *Springfield 2030 Comprehensive Plan – Economic Element* also apply to the subject site. The *Economic Element* of the City's *2030 Comprehensive Plan* updated and replaced the *Economic Element* of the *Metro Plan*. The "*Economic Element*" policies cited below are from the *Springfield 2030 Comprehensive Plan*.

Approval Standard: Policy E.1 of the *Economic Element* states:

Designate an adequate supply of land that is planned and zoned to provide sites of varying locations, configurations, size and characteristics as identified and described in the Economic Opportunity Analysis to accommodate industrial and other employment over the planning period. These sites may include vacant undeveloped land; partially developed sites with potential for additional development through infill development; and sites with redevelopment potential.

Finding 6: The applicant is proposing to rezone approximately 5 acres of vacant, undeveloped property to accommodate a targeted employment use, which in this case is a specialized medical services facility (i.e. rehabilitation hospital). The proposed rezoning is consistent with Policy E.1.

Approval Standard: Policy E.4 of the *Economic Element* states:

Expand industrial site opportunities by evaluating and rezoning commercial, residential, and industrial land for the best economic return for the community through the process of City refinement planning, review of owner-initiated land use proposals, expanding the urban growth boundary, and other means.

Finding 7: The subject rezoning request is an owner-initiated land use proposal. However, the applicant is proposing to rezone the property from Campus Industrial to Medical Services to facilitate development of an approximately 67,000 ft² medical facility on vacant property already owned by the

applicant. The proposed rezoning changes an industrial site to a Medical Services site, which is not consistent with Policy E.4.

Finding 8: While the proposed rezoning removes an industrial site from the City's inventory and therefore acts contrary to Policy E.4, there are other available industrial sites within the Campus Industrial district and in other industrial zones within Springfield. Based on the findings in this section, the proposal satisfies the preponderance of applicable policies in the Economic Element and should achieve a net benefit within the City's employment land base. For these reasons, the proposed rezoning is consistent with Criterion 1.

Approval Standard: Policy E.5 of the *Economic Element* states:

Provide an adequate, competitive short-term supply of suitable land to respond to economic development opportunities as they arise. "Short-term supply" means suitable land that is ready for construction within one year of an application for a building permit or request for service extension. "Competitive Short-term Supply" means the short-term supply of land provides a range of site sizes and locations to accommodate the market needs of a variety of industrial and other employment uses.

Finding 9: The subject proposal represents an economic development opportunity if the zoning for the property is changed. By definition, the rezoning action would create a "competitive short-term supply" site because the site is delineated from a larger contiguous landholding and the applicant would be able to proceed immediately with submittal of site plans. The proposed rehabilitation hospital represents an employment use because it is anticipated to have approximately 150 employees (Applicant Narrative, Page 17). The proposed rezoning is consistent with Policy E.5.

Approval Standard: Policy E.6 of the *Economic Element* states:

Facilitate short term and long term redevelopment activity and increased efficiency of land use through the urban renewal program, updates to refinement plans and the development review process.

Finding 10: The subject rezoning request would allow for consideration of a new medical services use on vacant property that is currently zoned for Campus Industrial use. In the absence of a rezoning, the applicant would be unable to initiate the development review process for the proposed rehabilitation hospital use. The proposed rezoning is consistent with Policy E.6

Approval Standard: Policy E.7 of the *Economic Element* states:

Where possible, concentrate development on sites with existing infrastructure or on sites where infrastructure can be provided relatively easily and at a comparatively low cost.

Finding 11: The subject site has frontage on fully developed public streets along the southern and western boundaries. A roundabout intersection at the northwest corner of the property can be modified to provide direct access to the subject site. All public utilities are available to serve the subject site, including electricity, telecommunications, water, sanitary sewer and storm sewer. The property is close to major transportation corridors and the Gateway-Riverbend EmX bus rapid transit route which runs along International Way. The infrastructure needed to serve the proposed medical services on the site are already available, or can be provided without costly extensions or upgrades to adjacent utilities. Therefore, the proposed rezoning is consistent with Policy E.7.

Approval Standards: Policy E.11 of the *Economic Element* states:

Integrate opportunistic economic development objectives into Springfield's land use and supply analyses and policies.

Implementation Strategy E.11.1 of the *Economic Element* states:

Plan, zone and reserve a sufficient supply of industrial and commercial buildable land to create opportunity sites for employment uses identified in the 2015 Economic Opportunities Analysis (EOA), with an initial emphasis on Target Industries listed in the analysis Table S-1, Target Industries, Springfield 2010-2030 (page iii-iv.)

Finding 12: The proposed rezoning would create an approximately 5-acre opportunity site for construction of a rehabilitation hospital on currently vacant property. The proposed rehabilitation hospital represents an employment use in Medical Services which is the number one listed target industry in Table S-1 of the 2015 Economic Opportunities Analysis. The proposed rezoning is consistent with Policy E.11 and Implementation Strategy E.11.1.

Approval Standards: Policy E.12 of the *Economic Element* states:

Recruit or support businesses that pay higher than average wages for the region (as reported by the Oregon Employment Department) to diversify and expand Springfield's economy.

Implementation Strategy E.12.5 of the *Economic Element* states:

Support increased potential for employment in one of the regional industry clusters.

Finding 13: The proposed rezoning would facilitate construction of a medical services facility that pays higher than average wages for Lane County according to 2023 wage information from the Oregon Employment Department. These medical sector wages include nurses, physicians, physician assistants, physical therapists, medical assistants, medical technicians, and hospital administrators.

Finding 14: The adjoining property to the east is occupied by the PeaceHealth Riverbend annex, which operates as a medical laboratory facility and administrative offices for the nearby Sacred Heart Medical Center at Riverbend. The adjacent property to the west is occupied by PacificSource, which operates as a health insurance provider and health care plan administrator. The proposed rehabilitation hospital is located in-between the PeaceHealth and PacificSource buildings and it would represent the third medical services and health care related facility on the two adjacent sites. In combination with the nearby Sacred Heart Riverbend Medical Center, this aggregation contributes to a medical services industry cluster as identified in the City's acknowledged *Commercial Industrial Buildable Lands Inventory and Economic Opportunities Analysis (CIBL)* (See CIBL page 132). An "industrial cluster" is explained in the CIBL as including sectors with a higher-than-average number of businesses within a geographic area and with anticipated higher than average employment growth (See CIBL pp. 129). The Sacred Heart Riverbend campus is described in the CIBL as an emerging medical services cluster (See CIBL pg. 132). In this case, the subject property would become part of the cluster of medical and health care related facilities (listed in Finding 20 below) that are located within an approximately 0.5 square mile area of the *Gateway Refinement Plan*: the cluster area begins at the intersection of Riverbend Drive at Martin Luther King, Jr. Boulevard, incorporates the Sacred Heart at Riverbend hospital campus, and extends in a north and northwesterly direction to International Way near the

intersection with Sports Way. The proposed rezoning is consistent with Policy E.12 and Implementation Strategy E.12.5.

Approval Standard: Policy E.16 of the *Economic Element* states:

Consider the economic opportunities provided by transportation corridors and seek to maximize economic uses in corridors that provide the most optimal locations and best exposure for existing and future commercial and industrial uses.

Finding 15: In combination with the concurrent *Metro Plan* diagram amendment, the proposed rezoning introduces a new zoning district into a large, contiguous area of existing Campus Industrial zoning. However, this is the most expeditious step necessary (and available under current Development Code provisions) to create a new, viable site for the proposed rehabilitation hospital on property already owned by the applicant.

Finding 16: Provisions of the Campus Industrial zoning district specifically preclude the type of medical services facility proposed by the applicant. Because the property has been vacant and continues to host a remnant filbert orchard that likely pre-dates the implementation of CI zoning more than 30 years ago, it seems unlikely that another potential site user would be displaced by the requested rezoning action. Additionally, the proposed rezoning is the minimum area necessary to accommodate the rehabilitation hospital and there is vacant CI zoned property remaining to the north of the site.

Finding 17: The applicant has identified the subject property as a potential site and stated a market need that can be addressed by the proposed rezoning. The proposed rezoning looks to capitalize on siting a new 67,000 ft² medical facility with 150 employees on a vacant, undeveloped piece of property at the intersection of Game Farm Road and Maple Island Road. Along the southern boundary of the site, the proposed rehabilitation hospital has frontage on Game Farm Road which is developed as an urban major collector street. The primary frontage along the western boundary of the site is located on Maple Island Road, which is developed as a local street. The property has an existing roundabout intersection at the northwest corner that can be readily extended to provide future access to the site. The property's corner location on two existing developed public streets with roundabout intersections offers a comparative advantage to other Campus Industrial zoned sites in the vicinity that are either not currently annexed (and therefore not development-ready) or that lack fully improved public street frontages (such as properties along Deadmond Ferry Road east of International Way).

Finding 18: The subject property has been vacant and unused for urban land use activities since the Campus Industrial zoning district was established in 1992. The economic opportunity presented by the applicant is to utilize land that has been zoned for urban uses but has remained vacant for more than 30 years. In addition to developing a currently vacant piece of property, the proposed end user (i.e. medical services) is a key target industry (as defined in the CIBL) that generates considerable direct and indirect economic benefits for the City and region. The proposed rezoning is consistent with Policy E.16.

Approval Standards: Policy E.28 of the *Economic Element* states:

Increase the potential for employment in the regional industry clusters, including: Health Care, Communication Equipment, Information Technology (Software), Metals (Wholesalers), Local Food and Beverage Production and Distribution, Specialty Agriculture, Wood & Forest Products, and Transportation Equipment.

Implementation Strategy 28.3 states:

Promote further development of the health care cluster by examining land-use policies and, if necessary, modifying those policies to promote health care cluster development where the supporting uses are consistent with 2030 Plan policies or when policies are amended through a district or corridor refinement planning process.

Finding 19: The economic conditions of 2023 are significantly different than when the Campus Industrial district was initially created in 1992. It is also notable that many of the original “colonizers” of the City’s Campus Industrial district – such as Sony, Symantec and Royal Caribbean – are no longer operating in the area. Instead, other users have gravitated to the area and repurposed the buildings and facilities. Within close proximity to the Sacred Heart Medical Center, several of the users are in health care and closely related industries.

Finding 20: The proposed rezoning would introduce another health care related use (i.e. specialized medical services facility) into a local cluster of similar and complementary uses. These existing uses include PacificSource health plans, the PeaceHealth Riverbend annex (medical laboratories), Sacred Heart Medical Center at Riverbend campus (which incorporates the main hospital building, Riverbend Pavilion building, Northwest Specialty Clinics building and Ronald McDonald House), PeaceHealth medical practitioners operating at the former Birthing Center on Deadmond Ferry Road, and the Women’s Care center on Martin Luther King Jr. Boulevard at Riverbend Drive. All of these facilities are clustered in a roughly 0.5-square-mile area of the north Gateway region of Springfield. The proposed rezoning is consistent with Policy E.28 and Implementation Strategy E.28.1.

Conclusion: The proposed rezoning meets Criterion 1.

2. Consistency with applicable Refinement Plans, Plan District maps, Conceptual Development Plans and functional plans;

Applicant’s Narrative: “*The Subject Property is within the boundary of the Gateway Refinement Plan adopted on November 9, 1992. In 1992, the Subject Property was shown on the land use diagram as part of the McKenzie-Gateway Special Light Industrial site. Below are applicable Gateway Refinement Plan policies in **bold italics** followed by the applicant’s findings.*

8.0 Provide for an efficient and flexible transportation system for the McKenzie-Gateway SLI Site.

9.0 Improve the appearance and effectiveness of the main approaches to the McKenzie-Gateway SLI Site. . . .

Through substantial public and private investments, significant capital improvements have improved the transportation system serving the McKenzie-Gateway SLI Site. The proposed Zone Change will not have an adverse impact on the transportation system. The planned development will increase potential transit riders using the nearby EmX stations.

10.0 Mitigate the impacts of incremental (SLI) development on existing onsite (non-SLI) uses occupying the McKenzie-Gateway SLI Site.

Policy 10.0 recognized that full development of the McKenzie-Gateway SLI Site would likely occur incrementally. The Subject Property is located at the southwest corner of the RiverBend Annex campus. The impetus for the proposed Zone Change is the proposed use of the Subject Property for a new expanded PeaceHealth RiverBend In-Patient Rehabilitation Facility. Through the site plan

review process, any development will be required to comply with SDC standards including requirements for landscaping, building setbacks, parking, etc. Development of the Subject Property will be compatible with surrounding land uses including the remaining portion of the RiverBend Annex campus.

11.0 Ensure that development plans adequately consider the site's natural landscape features and amenities, and provide for the development needs of future developers.

The proposed Zone Change to Medical Services will allow different uses than the existing CI Campus Industrial zone but many of the development standards, such as landscape requirements for parking areas and stormwater management will remain the same. The site plan review process requires that developers adequately consider existing site conditions.

12.0 Encourage the preservation and/or enhancement of reminders of the area's rich agricultural heritage, which are found in the McKenzie-Gateway SLI area.

The policy above is directed towards the City of Springfield encouraging historic preservation but is not a mandatory policy for reviewing a zone change request. The Subject Property contains a small remnant of a significantly larger filbert orchard to the west of the site. The applicant will consider ways to provide a reminder of the area's rich agricultural heritage such as a commemorative plaque or display of historic photos in the building. Regardless of zoning, any new development will require changes in grade making it impracticable to retain the orchard.

13.0 Ensure adequate storm drainage management planning emphasizing the minimization of negative impacts on water quality and quantity resulting from McKenzie-Gateway SLI Site development.

Any development of the Subject Property will require compliance with City, state and federal water quality standards and to review of proposed storm drainage for the site."

Finding 21: The applicant's narrative responses for Policies 8.0 – 13.0 are incorporated as findings herein and demonstrate the proposal is consistent with Criterion 2.

Finding 22: For Policy 12.0, it is not logical or feasible to preserve remnant filbert orchards on the subject site – especially groves that have not been actively managed for productivity, blight and other issues. The current and proposed zoning is not conducive to maintaining agricultural activities on the site. Additionally, other orchards in the vicinity have been incrementally displaced by buildings, infrastructure, and manicured landscaping as the Campus Industrial district has developed and evolved. The applicant's suggestion to commemorate the historic agricultural use through a plaque or other visual display is commendable and supported by the City of Springfield.

Finding 23: For Policy 13.0, upon rezoning of the subject property, the proposed development will be subject to the stormwater regulatory requirements in effect on the date of submittal. Staff advises that these stormwater requirements are increasingly stringent and far more complex and detailed than what was originally contemplated in the 1992 Refinement Plan. For this reason, any stormwater management design for the subject site that meets current Development Code provisions and the City's adopted Stormwater Management requirements will satisfy the stated standards referenced in the original Refinement Plan but under a stricter regulatory environment.

Conclusion: The proposed rezoning meets Criterion 2.

3. The property is presently provided with adequate public facilities, services and transportation networks to support the use, or these facilities, services and transportation networks are planned to be provided concurrently with the development of the property.

Applicant's Narrative: "The Subject Property is within the City limits and is presently provided with adequate public facilities, services and transportation networks to support the planned use."

Finding 24: The property requested for zone change has frontage on Game Farm Road (which is classified as a collector street), and Maple Island Road (classified as a local street). Along the southern boundary of the property, Game Farm Road is developed with one vehicle travel lane and one bicycle lane in each direction and there is a short segment of bi-directional center turn lane. The Game Farm Road frontage has existing setback sidewalk, street trees and street lighting. Along the western boundary of the property, Maple Island Road is developed with one vehicle travel lane and bicycle lane in each direction. Street trees and street lighting has been installed. Setback sidewalks have been installed adjacent to the roundabout intersections at the northwest and southwest corners of the property but the western edge of the subject site lacks a continuous sidewalk connection. Additionally, the bicycle lanes on Maple Island Road converge to the adjacent sidewalk at the southwest and northwest corners of the site where there are roundabout intersections. Upon future development of the subject property, should this occur, the developer will be responsible for completing the sidewalk connection along Maple Island Road.

Finding 25: The proposed rezoning would allow for introduction of a new medical services use within an area of similar and complementary uses. The applicant is proposing to rezone only the property area necessary for the rehabilitation hospital, which leaves other vacant Campus Industrial land to the north of the site available for future development.

Finding 26: The northwest corner of the proposed development site is located about 850 feet walking distance from bus rapid transit service on International Way. Existing transit platforms are positioned just to the west of the roundabout intersection at Maple Island Road and International Way.

Finding 27: The entire Campus Industrial district – which this site is proposed to be a part of – has an interconnected network of sidewalks and pedestrian walkways that are commonly used for exercise and recreation by local employees. The proposed rehabilitation hospital would have similar walkable facilities on the public street frontages and internal to the site.

Finding 28: The Campus Industrial district of north Springfield has been provided with a full suite of public utilities and services with sufficient capacity to support the requested rezoning from CI to MS. Existing public utilities within or on the perimeter of the subject property include the following:

- Sanitary Sewer: There is an existing 8-inch sanitary sewer line within Maple Island Road that runs southward to the intersection with Game Farm Road and then eastward to an existing sanitary sewer pump station at the southeast corner of the site. The pump station serves the adjacent Campus Industrial and R-3 residential areas to the north and east of Game Farm Road and Deadmond Ferry Road, including the subject site. Collected sewage is pumped westward to the regional treatment plant on River Avenue in Eugene. To accommodate the proposed development, the applicant will be responsible for modeling anticipated sewage flows from the site to ensure they meet projected volumes as contemplated by the Campus Industrial designation and zoning and the City's Sanitary Sewer Master Plan. Additionally, the applicant may be proportionally responsible for any upgrades to the existing sanitary sewer pump station necessary to increase capacity and flows as new development occurs within the service area.

Review and approval of sanitary sewer plans will be done in conjunction with detailed site plans for the proposed development. **Confirmation of sanitary sewer capacity in the system and pump station serving the subject property is a condition of approval to be satisfied prior to or concurrently with Site Plan Review for the proposed development.**

- **Storm Sewer:** There are public storm sewer lines that run along the Maple Island Road and Game Farm Road frontages of the subject site. These storm sewer lines have been sized for full buildout of the entire Campus Industrial district of north Springfield. At present, not all sites within the anticipated catchment area have fully developed so there is some excess capacity in the public stormwater system. However, evolving stormwater regulations now require more infiltration and management of drainage on individual sites and discharge to the public system is limited to pre-development flow conditions, or less. As future development occurs the developer will be responsible for installing private stormwater facilities to manage drainage on the site.
- **Water:** Springfield Utility Board (SUB) water service is located along the public street frontages of the property. The applicant will need to review the location and availability of public fire hydrants as site development plans are prepared for the project. **Confirmation of existing and proposed fire hydrant locations, coverage areas and flow capacities necessary to serve the proposed rehabilitation hospital is a condition of approval to be satisfied prior to or concurrently with Site Plan Review for the proposed development.**
- **Electricity:** SUB Electric has underground conduit and electrical facilities along the Maple Island Road frontage of the property. There are existing overhead lines on the south side of Deadmond Ferry Road and Game Farm Road that can also serve the subject property. The planned electrical facilities are to be placed underground and area suitable for future development of the site with a medical services use.
- **Telecommunications:** Comcast and CenturyLink have telecommunication facilities along the Maple Island Road and Game Farm Road frontages of the property, including fiberoptic lines. The existing and planned facilities are suitable for future development of the site with a medical services use.

Finding 29: Should the applicant's concurrent applications for Metro Plan amendment and zone change be approved, future development of the subject site with a medical services use would be subject to the land use approval process outlined in SDC 5.17.100 (Site Plan Review).

Conclusion: As conditioned, the proposed rezoning meets Criterion 3.

4. Legislative Zoning Map amendments that involve a Metro Plan Diagram amendment shall:

a. Meet the approval criteria specified in Section 5.14.100; and

Applicant's Narrative: "The findings provided above related to SDC 5.14.100 are hereby incorporated by reference."

b. Comply with Oregon Administrative Rule (OAR) 660-012-0060, where applicable.

Applicant's Narrative: "The applicant retained a licensed traffic engineer (Sandow Engineering) to prepare a Traffic Impact Analysis and Transportation Planning Rule Analysis. The report contains the following findings:

- *The addition of development trips does not trigger any intersections to not meet the LOS standards.*
- *The intersection of Gateway Street at Beltline Road currently operates at LOS F during the PM peak hour. The zone change and proposed use will add less than a 3% increase in trips. This trip increase is insignificant in terms of impact on the intersection. Therefore, no mitigation is recommended.*
- *The addition of development traffic does not substantially increase queuing conditions.*
- *There is no off-site mitigation needed for this development.*
- *TPR findings are demonstrated to be met.*

Based upon the findings above, the zone change complies with the Transportation Planning Rule (TPR). For further information, refer to Exhibit I – Traffic Impact Analysis and Transportation Planning Rule Analysis.”

Finding 30: The applicant has submitted a concurrent *Metro Plan* diagram amendment application (File 811-23-000182-TYP4) under separate cover. The applicant’s submittal materials, narrative, and staff findings and recommendations demonstrate compliance with the *Metro Plan* amendment provisions of Chapter IV of the *Metro Plan* and SDC 5.14.135.

Finding 31: The applicant has initiated an amendment to the *Metro Plan* diagram to change the designation for approximately 4.99 acres of property from Campus Industrial to Commercial under separate cover (File 811-23-000182-TYP4). That amendment will also include redesignating the land to Community Commercial in the Gateway Refinement Plan. Prior or concurrent redesignation to Community Commercial is necessary for the subject site to be rezoned from CI to MS. In accordance with SDC 3.2.505(B), the Medical Services zoning district can be implemented on a limited range of land use designations including Community Commercial, Major Retail Commercial, Mixed Use, High Density Residential and Medium Density Residential provided these sites abut a collector or arterial street.

Finding 32: The subject site is proposed to be redesignated to Commercial (under the *Metro Plan* diagram) and concurrently redesignated to Community Commercial under the *Gateway Refinement Plan* diagram. The site abuts a collector street (Game Farm Road) along the southern boundary. Therefore, provided the requested *Metro Plan* diagram and concurrent *Gateway Refinement Plan* diagram amendments are adopted, the subject site meets the requirements of SDC 3.2.505(B) for implementation of the Medical Services zoning district.

Finding 33: The rezoning area is a contiguous 4.99 acres plus adjacent public rights-of-way for Game Farm Road and the eastern half of Maple Island Road, which meets the requirements of SDC 3.2.505(C) for implementation of the Medical Services district on sites at least 3 contiguous acres in size. The concurrent rezoning of abutting public rights-of-way eliminates remnant pieces of Campus Industrial zoning on the property perimeter.

Finding 34: The applicant has submitted a supporting Traffic Impact Analysis for the project, which meets the requirements of SDC 3.2.505(E) for implementation of the Medical Services district.

Finding 35: The requested zone change is being undertaken as a site-specific change in compliance with provisions of the adopted *Metro Plan* and the Springfield Development Code. Oregon Administrative Rules (OAR) 660-012-0060 requires that, “if an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a

zoning map), would significantly affect an existing or planned transportation facility, then the local government must put in place measures” to mitigate the impact, as defined in OAR 660-012-0060(2). The findings in the applicant’s Traffic Impact Assessment (TIA) and the findings under Goal 12 provided in the concurrent *Metro Plan* diagram and *Gateway Refinement Plan* amendment contemplate the proposed zone change from CI to MS for the subject property. Based on those findings, which are incorporated by reference herein, no significant affect will occur and therefore no mitigation measures are necessary. Therefore, the rezoning complies with OAR 660-012-0060.

Conclusion: The proposed rezoning of the subject property and additional public rights-of-way meets Criterion 4.

Conclusion: Based on the above-listed criteria, as conditioned herein the criteria for rezoning have been met.

Conditions of Approval

SDC Section 5.22.120 allows for the Approval Authority to attach conditions of approval to a zone change request to ensure the application fully meets the criteria of approval. The specific language from the Code section is cited below:

5.22.120 CONDITIONS

The Approval Authority may attach conditions as may be reasonably necessary in order to allow the Zoning Map amendment to be granted. Staff is recommending the following conditions of approval.

Conditions of Approval:

- 1. Prior to or concurrent with submittal of a Site Plan Review application for the proposed rehabilitation hospital or another permitted medical services use, the applicant must prepare and submit a capacity analysis for the sanitary sewer system and pump station serving the property. The analysis must confirm that adequate sanitary sewer capacity exists for the proposed development. Alternatively, prior to City approval of the Site Plan Review application, the applicant must demonstrate that the necessary capacity can be provided through pump station upgrades. The applicant is responsible for paying the costs of any necessary pump station upgrades in proportion to the impact of the proposed development, prior to issuance of building permits for the project.**
- 2. Prior to or concurrent with submittal of a Site Plan Review application for the proposed rehabilitation hospital or another permitted medical services use, the applicant must prepare and submit a fire hydrant location, coverage, and flow capacity analysis for the site. The analysis must confirm that adequate capacity and coverage exists or can be provided for the proposed development through installation of new fire hydrants. The applicant is responsible for paying the costs of any necessary water system upgrades in proportion to the impact of the proposed development, prior to issuance of building permits for the project.**